

# JVC

## SERVICE MANUAL

### STEREO DOUBLE CASSETTE DECK RECEIVER

DR-E2BK  
MODEL No. DR-E2LBK



## Contents

	Page
Safety Precautions .....	1- 2
Service Precautions .....	1- 3
Instruction Book .....	1- 5
Block Diagram .....	1-21
Removal Procedures .....	1-23
Maintenance .....	1-25
Use of New-type Connector .....	1-25
FM/MW/LW Tuner Alignment Procedures .....	1-26
Cassette Deck Adjustment Procedures .....	1-27
Troubleshooting the Cassette Amplifier P.C. Board .....	1-30
Internal Block Diagrams of Major ICs .....	1-32
Terminal Functions of Micro-processor .....	1-35
Connection Diagram .....	1-37
Parts List .....	Separate Volume Insertion
Schematic Diagrams .....	Insertion



# Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes.

For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of the Service Manual. Electrical components having such features are identified by shading on the schematics and by (  $\Delta$  ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of the Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.

When service is required, the original lead routing and dress should be observed, and it should be confirmed they have been returned to normal, after re-assembling.

5. Leakage current check

(Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

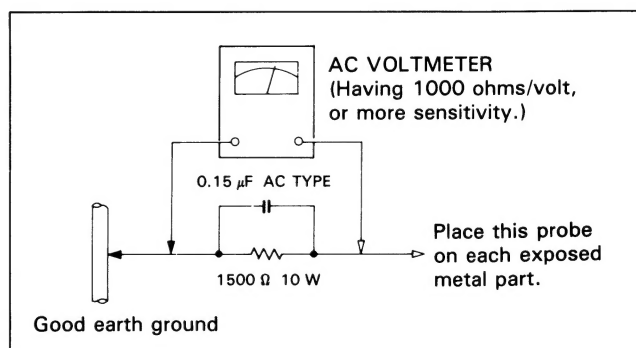
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).

- Alternate check method.

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500  $\Omega$  10 W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC(r.m.s.). This corresponds to 0.5 mA AC(r.m.s.).



## CHECK THE VOLTAGE SELECTOR'S SETTING

(Except for the U.S.A., Canada, Australia, the U.K. and Continental Europe)

Before inserting the power plug, please check that the voltage selector's setting corresponds with the line voltage in your area. If it doesn't be sure to reset the voltage selector before operating this equipment.

The voltage selector may be located on the rear or bottom of the unit, or underneath the platter.

**CAUTION :** Before setting the voltage selector to the proper voltage, disconnect the power plug.



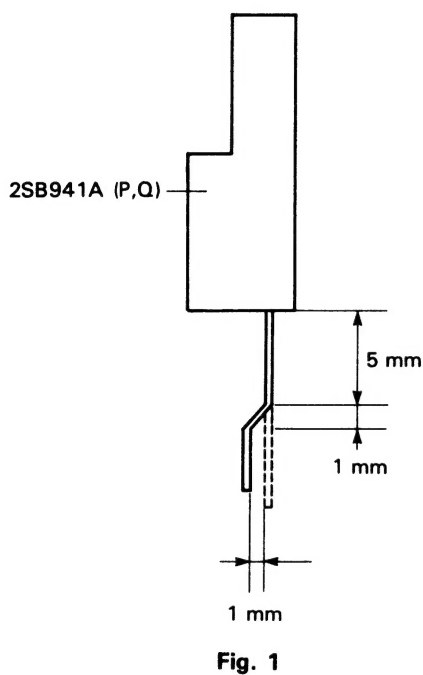
# Service Precautions

## 1. Transistor Replacement (Q461)

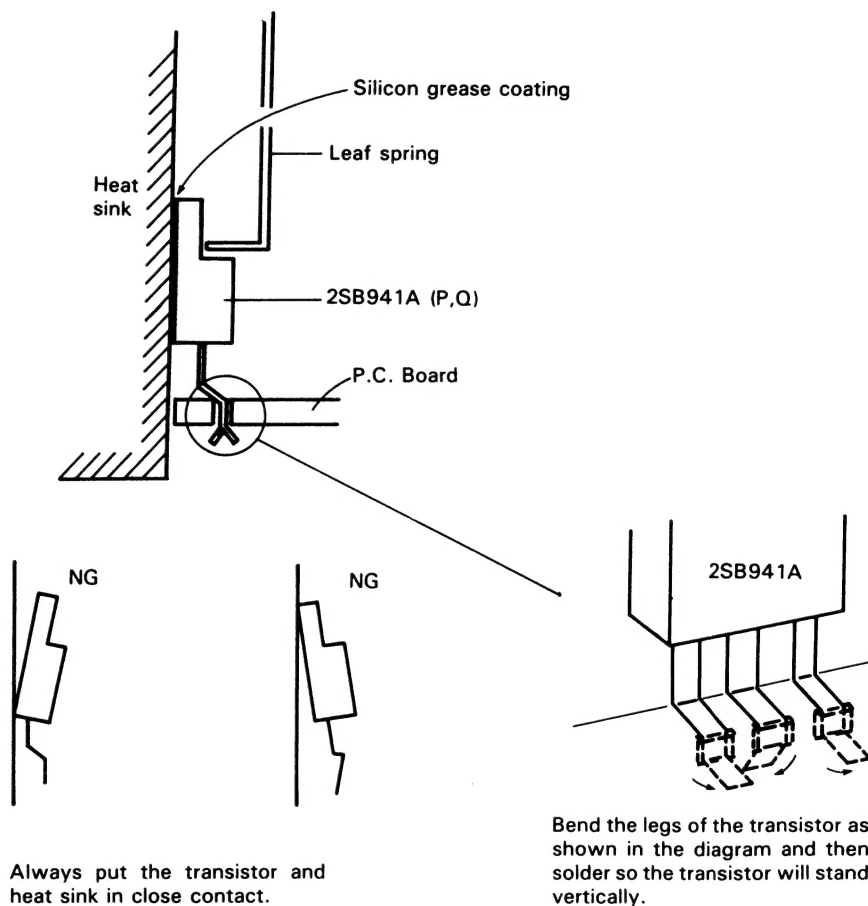
When replacing the regulator (Q461) used in the stabilized power supply circuit of this device, use caution concerning the following points.

- When replacing transistors, replace all of the 2SB1133 (R,S) type with 2SB941A (P,Q) because the performance is more stable.
- Before installing, form the transistor lead wires as shown in the diagram below so the transistor and heat sink will be in closer contact.
- After installation, coating the contact surface of the heat sinks is effective for increasing the heat radiation capability.

### Forming the transistor lead wires



### Method of installation









## DESCRIPTION AND FUNCTIONS

- 1 **FM/AM indicator**  
FM is displayed during FM reception and AM for AM.
- 2 **Frequency indicator**  
The tuned-in frequency is displayed digitally. Three or four digits (kHz) are displayed during AM reception and five digits (MHz) (for Europe, U.K., Australia and other countries) or four digits (MHz) (for U.S.A. and Canada) are displayed during FM reception.
- 3 **TUNER PRESET indicator**  
This indicator will display the channel number of the selected preset stations.
- 4 **FM MODE indicator**  
This indicator shows AUTO or MONO according to the setting of the FM MODE/MUTE button.
- 5 **FM MUTE indicator**  
This indicator shows ON or OFF according to the setting of the FM MODE/MUTE button.
- 6 **TUNED indicator**  
If a broadcast is received correctly, this indicator lights.
- 7 **STEREO indicator**  
When an FM stereo broadcast is being received, this indicator lights. When the MODE indicator shows MONO even if an FM stereo broadcast is received, this indicator will not light; press the FM MODE/MUTE button so that AUTO is shown.
- 8 **MEMORY indicator**  
This lights for about 5 seconds when the MEMORY button is pressed.

## BESCHREIBUNG UND FUNKTIONEN

- 1 **FM/AM-Anzeige**  
Bei FM-Empfang wird FM angezeigt, bei AM-Empfang AM.
- 2 **Frequenzanzeige**  
Die abgestimmte Frequenz wird digital angezeigt. Vier Ziffern (kHz) zeigen AM-Empfang an, fünf Ziffern (MHz) (für Europa, Großbritannien, Australien und andere Länder) oder vier Ziffern (MHz) (für die USA und Kanada) zeigen FM-Empfang an.
- 3 **Tuner-Vorwahlanzeige (TUNER PRESET)**  
Diese Anzeige zeigt die Kanalnummer der gewählten Vorwahlstationen an.
- 4 **UKW-Betriebsartanzeige (FM MODE)**  
Diese Kontrollleuchte zeigt AUTO oder MONO an, je nach Stellung der FM MODE/MUTE Taste.
- 5 **UKW-Stummabstimmmanzeige (FM MUTE)**  
Diese Kontrollleuchte zeigt ON (EIN) oder OFF (AUS) an, je nach Stellung der FM MODE/MUTE Taste.
- 6 **Abstimmmanzeige (TUNED)**  
Wenn die Übertragung korrekt empfangen wird, leuchtet diese Kontrolllampe auf.
- 7 **Stereoanzeige (STEREO)**  
Bei Empfang einer FM-Stereo-Übertragung leuchtet diese Anzeige auf. Wenn die MODE-Kontrolllampe auch bei Empfang einer FM-Stereo-Übertragung MONO anzeigt, dann leuchtet diese Anzeige nicht auf; drücken Sie die FM MODE/MUTE Taste, um AUTO einzustellen.
- 8 **Speicheranzeige (MEMORY)**  
Leuchtet etwa 5 Sekunden lang auf, wenn man die MEMORY-Taste drückt.

## DESCRIPTION ET FONCTIONS

- 1 **Indicateur FM/AM**  
FM est affiché pour une réception FM et AM est affiché pour une réception AM.
- 2 **Indicateur de fréquence**  
La fréquence syntonisée est affichée numériquement. Quatre chiffres sont affichés pour une réception AM et cinq chiffres sont affichés pour une réception FM en Europe, Royaume Uni, Australie et autres pays (alors que quatre chiffres sont affichés pour une réception FM aux Etats-Unis et au Canada.)
- 3 **Indicateur de préréglage de la syntonisation (TUNER PRESET)**  
Affiche le numéro de canal de la station préréglée que a été choisie.
- 4 **Indicateur de mode FM**  
Cet indicateur indique une réception en MONO ou en AUTO selon le réglage du commutateur de MODE FM/Silencieux.
- 5 **Indicateur de silencieux FM (FM MUTE)**  
L'indicateur indique ON ou OFF en fonction de la position de la touche MODE FM/MUTE.
- 6 **Indicateur de syntonisation (TUNED)**  
Reste allumé pendant l'écoute d'une station lorsque la réception est correcte.
- 7 **Indicateur STEREO**  
S'allume à la réception d'un programme FM en stéréo.  
Il ne s'allumera pas si l'indicateur de MODE indique MONO même si l'émission est en stéréo; enfoncer la touche FM MODE/MUTE (silencieux) pour faire apparaître le mode AUTO.
- 8 **Indicateur de mémoire (MEMORY)**  
Reste environ 5 secondes allumé lorsqu'on enfonce le commutateur de mémoire MEMORY.

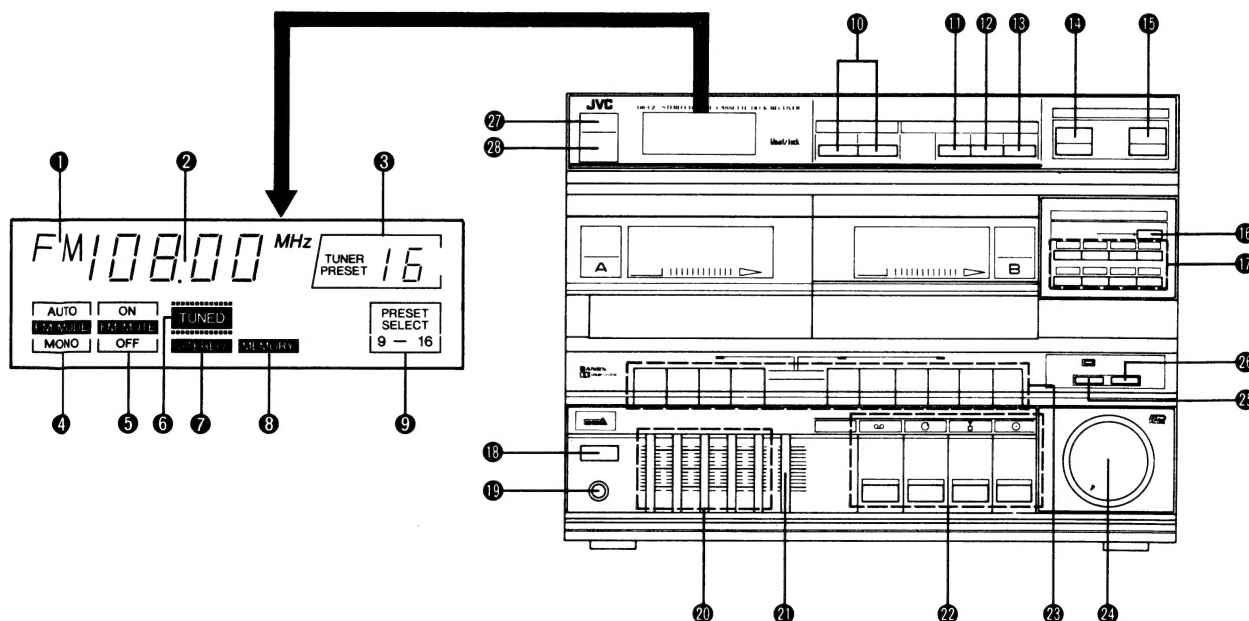


Fig. 10  
Abb. 10  
Ill. 10



#### 9 PRESET SELECT indicator

Selected preset channels 1 – 8 or 9 – 16 are indicated by the PRESET SELECT button.

#### 10 TUNING

**Down (<):** To lower the receiving frequency, press this button.

**Up (>):** To raise the receiving frequency press this button.

**DR-E2BK:** Each time you press this button, the FM frequency will change by a 50 kHz or 100 kHz step, and AM frequency by a 9 kHz or 10 kHz step.

**DR-E2LBK:** Each time you press this button, the FM frequency will change by a 50 kHz step, MW by a 9 kHz step, and LW by a 1 kHz step. This unit is constructed so that MW and LW can be changed automatically by pressing the tuning button. For LW, if you want to raise the frequency, it can be changed automatically from 353 kHz to 522 kHz (290 kHz to 522 kHz for Italy only). Conversely, if you wish to lower the frequency, it can be automatically changed from 522 kHz to 353 kHz (522 kHz to 290 kHz for Italy only).

Holding either button pressed for more than 1 second and then releasing it starts auto tuning. When a broadcast is received, tuning will stop. But if either button is kept held in, scanning continues even when a broadcast is received. In auto tuning, pressing either button stops scanning. Tapping the button stops, changing the frequency when the top or the bottom frequency is reached, while, in auto tuning the scanning changes direction.

#### Channel spacing

Band Area	FM	AM (MW)	AM (LW)
U.S.A. Canada	100 kHz	10 kHz	—
Europe. UK	50 kHz	9 kHz	1 kHz
Australia	50 kHz	9 kHz	—
Other areas	50 kHz	9 kHz 10 kHz	—

An AM channel spacing knob is provided on the rear panel for selecting 9 kHz or 10 kHz steps according to your area. Switch over using the tip of a screwdriver as shown in Fig. 11. When performing this, be sure to disconnect the power cord then wait for about 1 minute to switch over the spacing knob.

Example  
Beispiel  
Exemple  
Voorbeeld  
Ejemplo  
Exempel

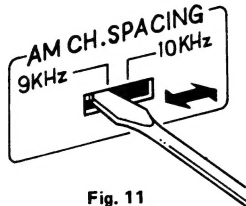


Fig. 11  
Abb. 11  
Ill. 11

#### 9 Vorwahlanzeige (PRESET SELECT)

Der gewählte Vorwahlkanal 1 – 8 oder 9 – 16 wird gemäß Stellung der PRESET SELECT Taste angezeigt.

#### 10 Abstimmung (TUNING)

**Nach unten (<):** Zum Verringern der Empfangsfrequenz diese Taste drücken.

**Nach oben (>):** Zum Erhöhen der Empfangsfrequenz diese Taste drücken.

**DR-E2BK:** Bei jedem Druck auf dieses Taste ändert sich die FM-Frequenz um jeweils 50 kHz oder 100 kHz, und die AM-Frequenz um 9 kHz oder 10 kHz.

**DR-E2LBK:** Bei jedem Druck auf diese Taste ändert sich die FM-Frequenz um jeweils 50 kHz, die MW-Frequenz um 9 kHz und die LW-Frequenz um 1 kHz. Durch Knopfdruck lassen sich MW und LW automatisch auf den jeweils anderen Bereich überwechseln. Wenn Sie im LW-Bereich die Frequenz erhöhen, springt sie automatisch von 353 kHz auf 522 kHz um (290 kHz bis 522 kHz, nur Italien). Wenn Sie die Frequenz dagegen verringern, springt sie automatisch von 522 kHz auf 353 kHz um (522 kHz bis 290 kHz, nur Italien).

Wenn man eine der Tasten länger als 1 Sekunde gedrückt hält und dann losläßt, beginnt die automatische Abstimmung. Bei Empfang eines Senders hält der Abstimmungsvorgang an. Wenn man dagegen eine der Tasten gedrückt hält, wird auch bei Senderempfang weiterhin abgestimmt. Während automatischer Abstimmung unterbricht die Betätigung einer der Tasten den Abstimmungsvorgang. Antippen der Taste unterbricht die Frequenzänderung, wenn die obere oder untere Frequenzgrenze erreicht ist. Bei automatischer Abstimmung wechseln die Frequenzsprünge in die entgegengesetzte Richtung.

#### Kanalabstände

Wellenbereich Länder	UKW	AM (MW)	AM (LW)
U.S.A. Kanada	100 kHz	10 kHz	—
Europa Großbritannien	50 kHz	9 kHz	1 kHz
Australien	50 kHz	9 kHz	—
Andere Länder	50 kHz	9 kHz 10 kHz	—

Mit dem AM-Kanalabstandsschalter an der Rückwand lassen sich die Frequenzsprünge auf 9 kHz oder 10 kHz einstellen, je nach Land. Die Umschaltung erfolgt mit der Spitze eines Schraubenziehers, wie in Abb. 11 gezeigt. Dabei ist unbedingt das Netzkabel abzuziehen und erst nach etwa 1 Minute der Abstandsschalter umzustellen. (Für Geräte des deutschen Marktes keine Einstellmöglichkeit)

Switch over using the tip of a screwdriver as shown in Fig. 11.

Verwenden Sie zum Umschalten die Klinge eines Schraubenziehers, siehe Abb. 11.

Changer à l'aide d'un tournevis comme indiqué dans la Fig. 11.

Schakel m.b.v. een schroevendraaier over, zoals Fig. 11 laat zien.

Conmuta usando la punta de un destornillador de la manera que se ve en la Fig. 11.

Ändra på frekvenstilldelningssteget med skruvmejselns spets som visas på Ill. 11.

#### 9 Indicateur de sélection de station prééglée (PRESET SELECT)

La touche PRESET SELECT permet d'indiquer les canaux 1 – 8 ou 9 – 16 prééglés qui sont sélectionnés.

#### 10 Syntonisation (TUNING)

**DOWN (<):** Enfoncer cette touche pour recevoir les basses fréquences.

**UP (>):** Enfoncer cette touche pour recevoir les hautes fréquences.

**DR-E2BK:** A chaque pression de la touche de syntonisation la fréquence FM se modifie de 50 k ou de 100 kHz, et la fréquence PO de 9 k ou 10 kHz.

**DR-E2LBK:** A chaque pression de la touche de syntonisation la fréquence FM se modifie de 50 kHz, la fréquence PO de 9 kHz, et la fréquence GO de 1 kHz. Cet appareil est conçu de façon à ce que les PO et les GO se commutent automatiquement sur simple pression de la touche de syntonisation. Pour augmenter la fréquence des GO, il est possible de passer automatiquement de 353 kHz à 522 kHz (290 kHz à 522 kHz pour l'Italie seulement). Pour au contraire diminuer la fréquence il est possible de passer directement de 522 kHz à 353 kHz (522 kHz à 290 kHz pour l'Italie seulement). La syntonisation automatique démarre lorsqu'une touche est enfoncée l'espace d'une seconde, et s'arrête dès qu'un programme est reçu. Par contre si une touche reste enfoncée le balayage continue alors qu'un programme est reçu. Avec la syntonisation automatique, le balayage s'arrête dès que l'on enfonce une touche. Une pression de la touche provoque l'arrêt du changement de fréquence dès que la fréquence limite est atteinte, alors que dans le cas d'une syntonisation automatique les fréquences continuent dans la direction opposée.

#### Espacement des canaux

Gamme Pays	FM	AM (PO)	AM (GO)
Etats-Unis. Canada	100 kHz	10 kHz	—
Europe. Royaume Uni	50 kHz	9 kHz	1 kHz
Australie	50 kHz	9 kHz	—
Autres pays	50 kHz	9 kHz 10 kHz	—

Le commutateur d'espacement des canaux AM est situé sur le panneau arrière pour la sélection d'étapes de 9 kHz ou 10 kHz selon le pays ou la région.

Commuter à l'aide d'un tournevis comme indiqué figure 11. Avant de procéder à cette opération, s'assurer que la prise d'alimentation est débranchée. Une minute après, commuter le commutateur d'espacement des canaux.



**11 MEMORY**

When this button is pressed, the MEMORY indicator will light for about 5 seconds to show that the memory is ready to receive preset station information. Press one of the PRESET STATIONS buttons while the MEMORY indicator is lit.

**Note:**

- After the MEMORY indicator has gone out, pressing the PRESET STATIONS button will not store the frequency in memory; in this case, press this button again.

**12 FM MODE/MUTE**

Press this button so that AUTO of FM MODE and ON of FM MUTE light in the display for normal FM reception for automatic elimination of interstation noise. When receiving a weak or noisy FM stereo broadcast, press this button so that MONO of FM MODE and OFF of FM MUTE in the display light, the broadcast will be heard in mono but the clarity of reception will be improved.

**13 PRESET SCAN**

This button permits the scanning of preset stations. When this button is pressed, channel 1 is tuned in, then this channel number flashes for about 5 seconds. The following channels are shown in the same way. When the desired station is received, pressing this button stops scanning so that the DR-E2BK/DR-E2LBK remains tuned to the station. After 16 stations (FM/AM) have been scanned, the frequency received before preset scanning is tuned to.

**14 FM**

Press this button to listen to the FM broadcast.

**15 AM (DR-E2BK), AM MW/LW (DR-E2LBK)**

Press this button to listen to the AM (MW/LW) broadcast.

**16 PRESET SELECT**

Press to set to channels 1 — 8 or channels 9 — 16. The 1 — 8 or 9 — 16 PRESET SELECT indicator lights. Up to 16 stations for each band (FM 16, AM 16 (MW, LW random)) can be preset as required. Even when you pushed MEMORY button and then changed 1 — 8 and 9 — 16 by pressing this button, it is possible to accomplish pre-set memory by pressing the pre-set station button.

**11 Speichertaste (MEMORY)**

Wenn man diese Taste drückt, leuchtet die MEMORY-Kontrolllampe etwa 5 Sekunden lang auf, d.h. der Speicher ist zum Empfang von Informationen über die Vorwahlstationen bereit. Eine der PRESET STATIONS-Tasten drücken, so lange die MEMORY-Kontrolllampe aufleuchtet.

**Hinweis:**

- Wenn die MEMORY-Kontrolllampe erloschen ist, können keine Frequenzen mehr durch Drücken der PRESET STATIONS Tasten gespeichert werden; es ist also wieder diese Taste zu betätigen.

**12 UKW-Betriebsart-/Stummabstimmte (FM MODE/MUTE)**

Wenn man diese Taste betätigt, leuchten bei normalem FM-Empfang die Kontrolllampen von AUTO in FM MODE und ON in FM MUTE auf, wobei automatische Stummabstimmung erzielt wird, benachbarte Sender also unterdrückt werden. Bei Empfang einer schwachen oder gestörten FM-Stereoübertragung einer schwachen oder gestörten FM-Stereoübertragung sollten Sie diese Taste so betätigen, daß die Kontrolllampen MONO in FM MODE und OFF in FM MUTE anzeigen. Der Empfang ist dann zwar in Mono, die Empfangsqualität aber verbessert.

**13 Vorwahlabtasttaste (PRESET SCAN)**

Mit dieser Taste lassen sich die voreingestellten Sender abtasten. Bei Betätigen der Taste wird Kanal 1 abgerufen. Die Kanalnummer blinkt dann etwa 5 Sekunden lang auf. Die folgenden Kanalnummern werden ebenso angezeigt. Wenn der gewünschte Sender empfangen wird, unterbricht ein erneuter Tastendruck den Abtastvorgang, so daß das DR-E2BK/DR-E2LBK auf den gewählten Sender eingestellt bleibt. Nach Abtasten von 16 Stationen (FM/AM) wird wieder die vor dem Abtasten empfangene Sendestation eingestellt.

**14 UKW-Taste (FM)**

Diese Taste drücken, um FM-Sendungen zu hören.

**15 MW-Taste (AM) (DR-E2BK), MW/LW-Taste (AN MW/LW) (DR-E2LBK)**

Diese Tasten drücken, um FM-Sendungen (MW/LW) zu hören.

**16 Vorwahlte (PRESET SELECT)**

Hiermit lassen sich die Kanäle 1 — 8 oder 9 — 16 wählen. Die PRESET SELECT Kontrolllampen 1 — 8 oder 9 — 16 leuchten dann auf. Bis zu 16 Stationen pro Band (FM 16, AM 16, MW/LW beliebig) können nach Wunsch voreingestellt werden. Selbst wenn die MEMORY-Taste gedrückt und 1 — 8 oder 9 — 16 durch Drücken dieser Taste angewählt wurde, ist Vorwahlspeicherung möglich, indem man einfach die entsprechende Vorwahlstationstaste drückt.

**11 Commutateur de mémoire (MEMORY)**

Lorsque ce commutateur est enfoncé l'indicateur de mémoire s'allume pendant environ 5 secondes, indiquant que la mémoire est prête à recevoir les données de stations radio présélectionnées. Enfoncer la touche correspondant à la station pré réglée désirée (PRESET STATIONS) dans cet intervalle.

**Remarque:**

- Si la touche de station pré réglée est enfoncée alors que l'indicateur MEMORY est déjà éteint la fréquence ne sera pas stockée. Appuyer à nouveau sur le commutateur de mémoire.

**12 Commutateur de mode FM/Silencieux (FM MODE/MUTE)**

Enfoncer ce commutateur jusqu'à ce que AUTO du MODE FM et ON du Silencieux FM paraissent à l'affichage afin de recevoir normalement la modulation de fréquence et éliminer automatiquement les parasites.

Si la réception en FM est trop faible ou chargée de parasites, enfoncer ce commutateur jusqu'à ce que le MONO du MODE FM et le OFF du silencieux FM paraissent à l'affichage; le circuit de silencieux est annulé et l'émission audible en mono, mais la qualité de la réception sera améliorée.

**13 Balayage des stations pré réglées (PRESET SCAN)**

Cette touche sert à effectuer le balayage des stations pré réglées. Quand le commutateur est en marche le canal 1 est syntonisé puis son numéro clignote pendant environ 5 secondes. Les canaux suivants sont indiqués de la même manière. Quand la station désirée est reçue, une pression sur ce commutateur arrête le balayage de manière à ce que le DR-E2BK/DR-E2LBK reste syntonisé sur la station. Après le balayage des 16 stations, la fréquence reçue avant le démarrage du balayage des stations est syntonisée à son tour.

**14 FM**

Pour écouter un programme FM, enfoncer cette touche.

**15 AM (DR-E2BK), AM PO/GO (DR-E2LBK)**

Pour écouter un programme AM (PO/GO), enfoncer cette touche.

**16 Préréglage des stations sélectionnées (PRESET SELECT)**

Pour régler sur les stations 1 — 8 ou 9 — 16 enfoncer les touches correspondantes; l'indicateur de préréglage des stations sélectionnées s'allume (soit 1 — 8, soit 9 — 16). Il est possible de préréglage jusqu'à 16 stations dans chaque gamme (FM 16, AM 16 — PO, GO). Même lorsque vous enfonchez la touche MEMORY et puis changez 1 — 8 et 9 — 16 en enfonçant cette touche, il est possible d'effectuer une mise en mémoire à l'aide de la touche de station présélectionnée.



## 17 PRESET STATIONS

These buttons are used to select one of the preset stations or to store the frequency in the memory of an individual channel. When one of these buttons is pressed, the channel number is shown by the TUNER PRESET indicator. If one of these buttons is pressed while the MEMORY indicator is lit, the frequency which is being received will be stored in memory.

## 18 POWER

**ON (—):** Press this button to turn the power on.

**OFF (■):** Set to this position to turn the power off.

## 19 PHONES jack

Plug in here when using headphones.

### Notes:

- Plugging in headphones switches off the sound from the speakers.
- Set the volume properly so that sound from the headphones does not hurt your ears.

## 20 S.E.A. graphic equalizer system

Adjust the tone as required using these knobs.

**63 Hz:** Raise to emphasize the very low bass response of organs, drums and contrabass. Raising this knob produces stable and solid sound to eliminate unclear sound at low frequencies, lower the knob.

**250 Hz:** Lower the knob to reduce reflected sound in the listening room or to eliminate unclear sound caused in a small listening room.

**1 kHz:** Most effective in emphasizing or de-emphasizing the human voice. Raise the knob to cause the vocalist to be brought to the foreground, or lower for the vocalist to recede into the background.

**4 kHz:** Raise this knob slightly so that the tension of strings can be sensed and vigorous sound can be obtained. Lower the knob for easy listening.

**16 kHz:** Boosting this frequency range properly adds to the delicacy of highs, with cymbals and triangles resounding in a more ear-pleasing way, and provides a feeling of extension. This knob can also be used to compensate for cartridge response since most moving magnet cartridges have resonance peaks in the frequency range from 10 kHz to 20 kHz.

## 21 BALANCE

Balances the volume between the left and right speakers.

## 22 SOURCE SELECTOR

**TAPE:** Press to listen to tapes.

**PHONO:** Press to listen to records.

**TUNER:** Press this button to listen to an AM (MW/LW)/FM broadcast.

**CD/AUX:** Press to listen to the unit connected to the CD/AUX terminals (CD player, etc.).

## 17 Vorwahlstationstaste (PRESET STATIONS)

Mit diesen Tasten läßt sich einer der vorgewählten Sender abrufen oder aber die Frequenz eines bestimmten Kanals speichern. Wenn man eine dieser Tasten betätigt, erscheint an der TUNER PRESET Kontrollanzeige die betreffende Kanalnummer. Wenn man eine dieser Tasten bei gleichzeitig leuchtender MEMORY-Anzeige betätigt, wird die augenblickliche Empfangsfrequenz gespeichert.

## 18 Netzschalter (POWER)

**ON (—):** Diesen Schalter zum Einschalten des Geräts drücken.

**OFF (■):** Zum Ausschalten auf diese Position stellen.

## 19 Kopfhörerbuchse (PHONES)

Zum Anschließen eines Kopfhörers.

### Hinweise:

- Wenn ein Kopfhörer angeschlossen ist, sind die Lautsprecher automatisch ausgeschaltet.
- Die Lautstärke nicht zu hoch einstellen, weil es sonst zu Gehörschäden kommen kann können.

## 20 S.E.A. Graphic Equalizer

Mit diesen Reglern kann der Klang nach persönlichem Geschmack eingestellt werden.  
**63 Hz:** Den Regler hochschieben, um die tiefen Bässe von Orgel, Schlagzeug und Kontrabass hervorzuheben. Durch Hochschieben dieses Reglers wird der Klang stabil und fest. Den Regler nach unten schieben, um einen unklaren Klang bei niedrigen Frequenzen zu eliminieren.

**250 Hz:** Den Regler nach unten schieben, um Klangreflektionen im Hörraum zu reduzieren oder um unklaren Klang in einem kleinen Hörraum zu eliminieren.

**1 kHz:** Sehr wirkungsvoll zum Hervorheben oder Senken der menschlichen Stimme. Durch Hochschieben des Reglers wird der Vokalist in den Vordergrund und durch Hinunterschieben in den Hintergrund gebracht.

**4 kHz:** Wenn dieser Regler nach oben geschoben wird, können die Spannungen von Streichinstrumenten empfunden und kräftige Klänge erhalten werden. Wenn der Regler nach unten geschoben wird, wird das Hören erleichtert.

**16 kHz:** Wenn dieser Frequenzbereich verstärkt wird, werden die Höhen deutlicher und Becken und Triangel klingen angenehmer. Außerdem scheint sich der Hörraum zu vergrößern. Dieser Regler kann auch verwendet werden, um den Frequenzgang des Tonabnehmers auszugleichen, da die meisten magnetischen Tonabnehmer zwischen 10 kHz und 20 kHz eine Resonanzspitze aufweisen.

## 21 Balanceregler (BALANCE)

Zur Balanceregulierung zwischen linkem und rechtem Kanal.

## 22 Signalquellentasten (SOURCE SELECTOR)

**TAPE:** Zum Hören von Cassetten.

**PHONO:** Betätigen, um auf Schallplattenwiedergabe zu schalten.

**TUNER:** Betätigen, um eine Radiosendung wiederzugeben (MW/LW, UKW).

**CD/AUX:** Betätigen, um auf Wiedergabe der an den CD/AUX-Buchsen angeschlossenen Signalquelle (CD-Player etc.) zu schalten.

## 17 Stations présélectionnées (PRESET STATIONS)

Ces touches servent à choisir une des stations présélectionnées ou à stocker en mémoire la fréquence d'un canal individuel. Lorsque la touche est enfoncée, le numéro de canal apparaît sur l'indicateur de préréglage de la syntonisation. La fréquence qui correspond est stockée dans la mémoire pendant que l'indicateur MEMORY s'allume, dès que l'une de ces touches est enfoncée.

## 18 Interrupteur d'alimentation (POWER)

**ON (—):** L'enfoncer pour fournir l'alimentation.

**OFF (■):** L'enfoncer sur cette position pour couper l'alimentation.

## 19 Prise de casque d'écoute (PHONES)

Y raccorder un casque d'écoute.

### Remarques:

- Quand vous branchez un casque, le son des haut-parleurs est coupé.
- Bien régler le volume de manière à ce que le son du casque ne provoque pas de troubles de l'oreille.

## 20 Système d'égalisation graphique S.E.A.

Régler la tonalité selon votre goût avec ces commandes.

**63 Hz:** Coulisser vers le haut pour augmenter la très basse réponse des orgues, tambours et contrebasses. La coulisser vers le haut produit un son stable et plein. Pour éliminer des sons indistincts à de basses fréquences, faire coulisser cette commande vers le bas.

**250 Hz:** La faire coulisser vers le bas pour réduire les sons réfléchis dans la salle d'écoute ou pour éliminer des sons peu clairs dans une petite salle d'écoute.

**1 kHz:** La plus efficace pour augmenter ou diminuer la voix humaine. La coulisser vers le haut pour que la voix soit amenée au premier plan ou vers le bas pour l'amener vers l'arrière-plan.

**4 kHz:** La coulisser légèrement vers le haut pour que la tension des cordes soit notable et que les sons vigoureux soient obtenus. La coulisser vers le bas pour une écoute plus souple.

**16 kHz:** Suramplifier correctement cette gamme de fréquences ajoute de la délicatesse aux aigus, les cymbales et triangles résonnant d'une manière plus agréable à l'oreille et donne un sentiment d'extension. Cette commande peut aussi être utilisée pour compenser la réponse de la cellule du fait que la majorité des cellules à aimant mobile ont des crêtes de résonance dans la gamme de fréquence allant de 10 kHz à 20 kHz.

## 21 Commande de balance (BALANCE)

Equilibre le volume entre les haut-parleurs de gauche et de droite.

## 22 Touches de sélection de source (SOURCE SELECTOR)

**TAPE:** Appuyer pour écouter des bandes.

**PHONO:** Appuyer pour écouter les disques.

**TUNER:** Appuyer pour écouter une émission AM (PO/GO)/FM.

**CD/AUX:** Appuyer pour écouter la source venant de l'appareil raccordé aux bornes CD/AUX (lecteur de disque audionumérique, etc.).



**23 Cassette operation buttons**

((A) means tape deck A and (B), tape deck B.)

**PLAY (▶) (A), (B):** Press this button to play a tape.

**REC (B):** Press this button together with the PLAY (▶) button to record.

**REW (◀◀) (A), (B):** Press this button to rewind a tape.

**FF (▶▶) (A), (B):** Press this button to fast forward a tape.

**STOP (■)/EJECT (▲) (A), (B):** Press to stop a tape while the tape is running. When the tape is stopped and this button is pressed, the cassette door is opened for tape loading and unloading.

**PAUSE (||) (B):** Press to stop the tape temporarily in recording or play back. To release the pause, press again.

**24 VOLUME**

Use to adjust the volume of the speakers or headphones.

**Note:**

• **Set the volume so as not to disturb your neighbors, especially late at night.**

**25 TAPE SYNCHRO**

Press this button when recording the tape played back by tape deck A with tape deck B.


The TAPE SYNCHRO indicator lights.

**26 ANRS/DOLBY B NR**

**ON (—):** Press this button to this position when recording with the ANRS/DOLBY B NR system or playing back a tape recorded with these systems.

**OFF (■):** Press this button to this position when the ANRS/DOLBY B NR system is not used.

\* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

**27 REMOTE SENSOR**

This sensor detects the signals transmitted from the remote control unit.

**28 RECEIVED indicator**

Lights when this unit receives signals transmitted from the remote control unit.

**28 Laufwerkfunktionstasten**

((A) kennzeichnet Deck A, (B) kennzeichnet Deck B.)

**PLAY (▶) (A), (B):** Diese Taste für Wiedergabebetrieb betätigen.

**REC (B):** Zusammen mit der PLAY (▶)-Taste betätigen, um Aufnahmen durchzuführen.

**REW (◀◀) (A), (B):** Zum Rückspulen des Bandes diese Taste drücken.

**FF (▶▶) (A), (B):** Zum Schnellvorspulen des Bandes diese Taste drücken.

**STOP (■)/EJECT (▲) (A), (B):** Zum Stoppen diese Taste drücken, während das Band läuft. Wenn das Band gestoppt ist und diese Taste gedrückt wird, öffnet sich das Cassettenfach, um eine Cassette einlegen oder entnehmen zu können.

**PAUSE (||) (B):** Zum Unterbrechen des Bandlaufs bei Aufnahme oder Wiedergabe diese Taste drücken. Zum Fortsetzen des Bandlaufs diese Taste noch einmal drücken.

**29 Lautstärkeregler (VOLUME)**

Zum Einstellen der Lautstärke der Lautsprecher oder des Kopfhörers.

**Hinweis:**

• **Die Lautstärke nur so hoch einstellen, daß andere nicht gestört werden, vor allem in der Nacht.**

**29 Band-Synchrotaste (TAPE SYNCHRO)**


Betätigen, um die Wiedergabe von Deck A mit Deck B aufzuzeichnen. Die TAPE SYNCHRO-Anzeige leuchtet.

**29 Rauschunterdrückung-Schalter (ANRS/DOLBY B NR)**

**ON (—):** Für Aufnahme mit dem ANRS/DOLBY B-Rauschunterdrückungssystem oder für Wiedergabe von Cassetten, die mit diesen Systemen aufgenommen wurden, den Schalter auf diese Position stellen.

**OFF (■):** Den Schalter durch nochmaliges Drücken auf diese Position stellen, wenn das ANRS/DOLBY B-Rauschunterdrückungssystem nicht verwendet wird.

\* Dolby Rauschunterdrückung ist hergestellt unter Lizenz von Dolby Laboratories Licensing Corporation.

DOLBY und das doppel D symbol  sind Warenzeichen der Dolby Laboratories Licensing Corporation.

**27 Fernbediensensor (REMOTE SENSOR)**

Dieser Sensor empfängt die von der Fernbedienungseinheit ausgestrahlten Signale.

**28 Empfangsanzeige (RECEIVED)**

Leuchtet bei Empfang von Signalen der Fernbedienungseinheit.

**29 Touches de fonctionnement de la cassette**

((A) signifie platine A et (B), platine B.)

**PLAY (▶) (A), (B):** Appuyer sur cette touche pour lire une bande.

**REC (B):** Appuyer sur cette touche et la touche PLAY (▶) pour enregistrer.

**REW (◀◀) (A), (B):** Pour réembobiner la bande.

**FF (▶▶) (A), (B):** Pour faire avancer rapidement la bande.

**STOP (■)/EJECT (▲) (A), (B):** L'enfoncer pour arrêter la bande alors qu'elle défile. Quand la bande est arrêtée et que cette touche est enfoncée, le compartiment cassette s'ouvre pour la mise en place et le retrait de la cassette.

**PAUSE (||) (B):** L'enfoncer pour arrêter momentanément la bande pendant l'enregistrement ou la lecture. Pour relâcher la pause, la réenfoncer.

**29 Commande de volume (VOLUME)**

L'utiliser pour régler le volume des haut-parleurs ou du casque d'écoute.

**Remarque:**

• **Régler le volume de manière à ne pas déranger vos voisins, surtout tard le soir.**

**29 Bouton de bande synchronisée (TAPE SYNCHRO)**


Appuyer sur cette touche pour enregistrer la bande lue par la platine A sur la platine B. L'indicateur TAPE SYNCHRO s'allume.

**29 Commutateur de système de réduction du bruit (ANRS/DOLBY B NR)**

**ON (—):** L'enfoncer sur cette position pour enregistrer avec le système ANRS/DOLBY B NR ou pour lire une bande enregistrée avec ce système en circuit.

**OFF (■):** L'enfoncer sur cette position quand le système ANRS/DOLBY B NR n'est pas utilisé.

\* Réduction de bruit Dolby fabriquée sous licence de Dolby Laboratories Licensing Corporation.

DOLBY et le symbole double-D  sont des marques de Dolby Laboratories Licensing Corporation.

**27 Détecteur de télécommande (REMOTE SENSOR)**

Ce détecteur reçoit les signaux transmis à partir du boîtier de télécommande.

**28 Indicateur de réception (RECEIVED)**

S'allume quand cet appareil reçoit des signaux transmis à partir du boîtier de télécommande.



## REMOTE CONTROL UNIT (RM-SE3)

### Note:

- Changing the source is not possible from the remote control unit. Use the controls on the main unit for this.

## FERNBEDIENTUNGS- EINHEIT (RM-SE3)

### Hinweis:

- Mit der Fernbedienung kann keine Signalquellenumschaltung vorgenommen werden. Hierzu die Bedienelemente am Gerät verwenden.

## BOITIER DE TELE- COMMANDE (RM-SE3)

### Remarque:

- Le changement de source à partir du boîtier de télécommande n'est pas possible. Utiliser les commandes de l'appareil principal pour cela.

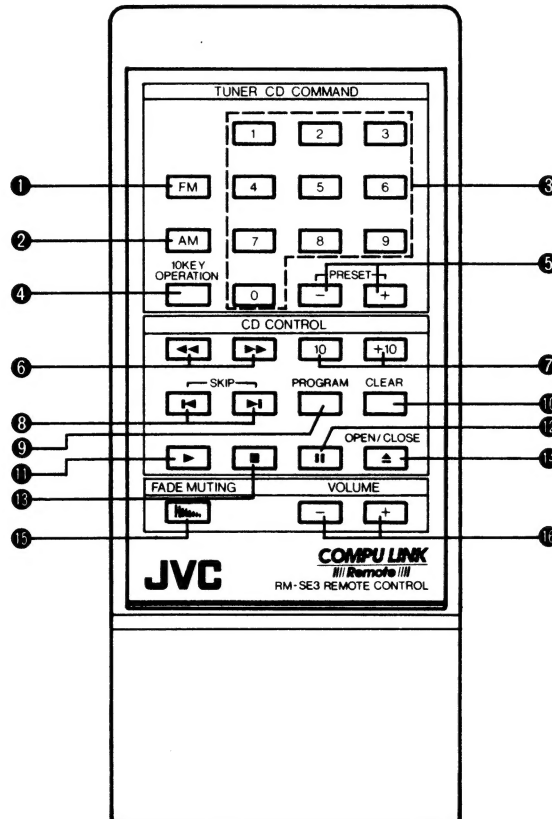


Fig. 12  
Abb. 12  
III. 12

- 1 FM**  
Press to listen to an FM broadcast.
- 2 AM**  
Press to listen to an AM broadcast. Pressing these buttons changes the function of the TUNER/CD COMMAND keys to preset station selection.
- 3 TUNER/CD COMMAND**  
To select preset stations or CD tracks numbered 1 – 9, first press "0", then the desired number. For those numbered 10 and above, first press "1".

- 1 UKW-Taste (FM)**  
Betätigen, um eine UKW-Sendung wiederzugeben.
- 2 AM-Taste**  
Betätigen, um eine AM-Sendung wiederzugeben. Nach Betätigen einer dieser Tasten können mit den TUNER/CD COMMAND-Tasten Sender abgerufen werden.
- 3 Taste für Sender-/CD-Titelwahl (TUNER/CD COMMAND)**  
Zur Anwahl der vorabgestimmten Sender/ Titel einer CD von 1 – 9 zuerst "0", dann die erforderliche Ziffer eingeben. Für darüberliegende Nummern zuerst "1" eingeben.

- 1 FM**  
Appuyer pour écouter une émission FM.
- 2 AM**  
Appuyer pour écouter une émission AM. Une pression sur ces touches change la fonction des touches TUNER/CD COMMAND pour la sélection des stations prééglées.
- 3 TUNER/CD COMMAND**  
Pour sélectionner des stations prééglées ou des pistes CD numérotées entre 1 et 9, appuyer d'abord sur "0", puis sur le numéro voulu. Pour celles numérotées 10 et plus, appuyer d'abord sur "1".



**4 10 KEY OPERATION**

Press this button to use the TUNER/CD COMMAND keys for selecting a CD track.

**5 PRESET [ ] , [ + ]**

Scan the preset FM/AM stations in order.

**6 << , >>**

Press these buttons to perform forward or reverse searching on a compact disc.

**7 [10] , [+10]**

Depending on the CD player, these buttons can be used to select a track number. To find out more, read your CD player's instruction book.

**8 SKIP**

(⏮): Press this button to move the pickup to the beginning of the current song while in the middle of play. Then, each time it is pressed, the pickup will skip to the beginning of the previous selection. Keeping this button pressed causes the pickup to skip back continuously.

(⏭): Press this button to move the pickup to the beginning of the next song. After this, each time this button is pressed, the pickup moves forward by one selection. Keeping it pressed causes it to skip forward continuously.

**9 PROGRAM**

Press this button in the stop mode to program, in order, the selections required to be listened to. Up to 15 selections can be programmed. The program indicator lights.

**10 CLEAR**

Press this button in the stop mode to clear the programmed selections.

**11 Play (▶)**

Press this button to play a compact disc.

**12 Pause (⏸)**

Press this button to stop play temporarily. To start play again, press the Play (▶) button.

**13 Stop (■)**

Press this button to stop play. The standby mode is engaged.

**14 OPEN/CLOSE (▲)**

Press this button to open or close the disc tray for loading or unloading a compact disc. Pressing this button during play stops play and the disc tray slides out.

**15 FADE MUTING**

Press this button to lower the volume in steps. The volume is further decreased each time this button is pressed.

**16 VOLUME -/+**

Press these buttons to change the volume. To raise the volume, press the + button. To decrease it, press the - button. The volume indicator flickers.

**4 Taste für CD-Titel Direktanwahl (10 KEY OPERATION)**

Betätigen, um mit den TUNER/CD COMMAND-Tasten einen Titel auf einer CD direkt anwählen zu können.

**5 PRESET [ ] , [ + ]**

Die gespeicherten UKW/AM-Sender in Eingabereihenfolge abrufen.

**6 << , >>**

Mit diesen Tasten kann für Compact Discs Suchlauf in Vorwärts- oder Rückwärtsrichtung durchgeführt werden.

**7 [10] , [+10]**

Je nach CD-Player-Ausführung können über diese Tasten Titel angewählt werden. Weitere Angaben finden Sie in der Bedienungsanleitung Ihres CD-Players.

**8 Sprungtaste (SKIP)**

(⏮): Betätigen, um den Abnehmer zum Anfang des jeweiligen Wiedergabetitels rückzusetzen. Mit jedem weiteren Antippen wird der Abnehmer zum jeweils vorherigen Titel-anfang rückgesetzt. Bei gedrückt gehaltener Taste erfolgt die Rücksetzung kontinuierlich.

(⏭): Betätigen, um den Abnehmer zum Anfang des jeweils nachfolgenden Titels zu setzen. Mit jedem weiteren Antippen wird der Abnehmer zum jeweils nächsten Titel weitergesetzt. Bei gedrückt gehaltener Taste erfolgt die Weitersetzung kontinuierlich.

**9 Taste für programmierte Wiedergabe (PROGRAM)**

Bei Stop-Betriebsart betätigen, um die Titelwiedergabereihenfolge einzugeben. Bis zu 15 Titel können beliebig vorgewählt werden. Die Programmanzeige leuchtet.

**10 Löschtaste (CLEAR)**

Bei Stop-Betriebsart betätigen, um die Programmeingabe wieder zu löschen.

**11 Wiedergabetaste (▶)**

Betätigen, um auf CD-Wiedergabe zu schalten.

**12 Pausetaste (⏸)**

Betätigen, um die Wiedergabe kurzzeitig zu unterbrechen.

Zur Wiedergabefortsetzung die Wiedergabetaste (▶) betätigen.

**13 Stoptaste (■)**

Betätigen um die Wiedergabe zu stoppen. Es wird auf Betriebsbereitschaft geschaltet.

**14 Öffnen/Schließen-Taste (OPEN/CLOSE (▲))**

Betätigen, um die CD-Lade für Einlegen/Entnehmen einer CD ein- oder auszufahren. Wird diese Taste bei Wiedergabe betätigt, stoppt diese, und die Lade wird ausgefahren.

**15 Tonausblendetaste (FADE MUTING)**

Betätigen, um die Lautstärke stufenweise abzusenken. Mit jedem Betätigen wird der Ton um eine Stufe abgesenkt.

**16 Lautstärketasten (VOLUME -/+)**

Betätigen, um die Lautstärke zu variieren. Zur Lautstärkeerhöhung die +-Taste, zur Lautstärkeabsenkung die --Taste betätigen. Die Lautstärkeanzeige blinkt.

**4 10 KEY OPERATION**

Appuyer sur cette touche pour utiliser les touches TUNER/CD COMMAND pour la sélection d'une piste CD.

**5 PRESET [ ] , [ + ]**

Balaie les stations FM/AM prééglées dans l'ordre.

**6 << , >>**

Appuyer sur ces touches pour effectuer une recherche en avant ou en arrière sur un disque audionumérique.

**7 [10] , [+10]**

En fonction du lecteur de disque audionumérique, ces touches peuvent être utilisées pour sélectionner un numéro de piste. Pour en savoir plus, lire le manuel d'instructions de votre lecteur de disque audionumérique.

**8 Saut (SKIP)**

(⏮): Appuyer sur cette touche pour déplacer le capteur au début du morceau en cours de lecture. Puis à chaque pression, le capteur sautera au début de la sélection précédente. En maintenant cette touche pressée, le capteur fait des sauts arrières en continu.

(⏭): Appuyer sur cette touche pour déplacer le capteur au début du morceau suivant. Après cela, chaque pression fait déplacer le capteur en avant d'un sélection. En maintenant cette touche pressée, il saute continuellement en avant.

**9 PROGRAM**

Appuyer sur cette touche dans le mode d'arrêt pour programmer, dans l'ordre, les sélections requises à l'écoute. Jusqu'à 15 sélections peuvent être programmées. L'indicateur de programme s'allume.

**10 CLEAR**

Appuyer sur cette touche dans le mode d'arrêt pour effacer les sélections programmées.

**11 Lecture (▶)**

Appuyer sur cette touche pour lire un disque audionumérique.

**12 Pause (⏸)**

Appuyer sur cette touche pour arrêter momentanément la lecture. Pour reprendre la lecture, appuyer sur la touche de lecture (▶).

**13 Arrêt (■)**

Appuyer sur cette touche pour arrêter la lecture. Le mode d'attente est engagé.

**14 OPEN/CLOSE (▲)**

Appuyer sur cette touche pour ouvrir ou fermer le plateau de disque pour mettre en place ou retirer un disque audionumérique. Une pression sur cette touche pendant la lecture arrête la lecture et le plateau de disque sort.

**15 Silencieux en fondu (FADE MUTING)**

Appuyer sur cette touche pour faire baisser le volume par paliers. Le volume diminue à chaque fois que la touche est pressée.

**16 VOLUME -/+**

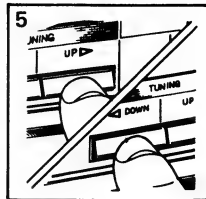
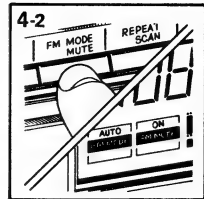
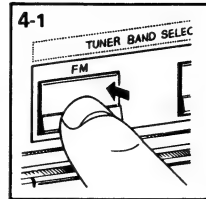
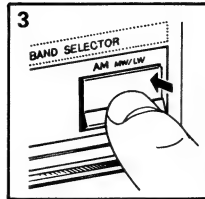
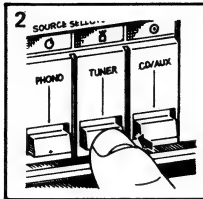
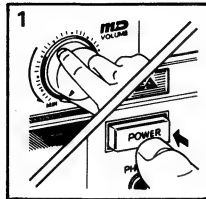
Appuyer sur ces touches pour changer le volume. Pour augmenter le volume, appuyer sur la touche +. Pour le diminuer, appuyer sur la touche -.

L'indicateur de volume clignote.



## OPERATION

### LISTENING TO BROADCASTS OR RECORDS



1. Press the POWER button to ON (—) after setting the volume knob to minimum.
2. To listen to broadcasts press the TUNER button.
3. To listen to an AM (MW/LW) broadcast, press the AM (MW/LW) button.
- 4-1. To listen to an FM broadcast, press the FM button.
- 4-2. Press the FM MODE/MUTE button to AUTO/ON.

#### Note:

- In weak signal areas, set the FM MODE/MUTE button to MONO/OFF. FM broadcasts will be heard in mono but noise is reduced.

5. Tune in a broadcast with the UP/DOWN TUNING button.  
In areas where signals are optimum, the TUNING indicator lights, when an FM or AM (MW/LW) broadcast is received. If it is an FM stereo broadcast, the FM STEREO indicator lights.

#### Presetting to selected stations

- 6-1. Press the POWER button to ON (—) and check the frequency of the desired station.
- 6-2. Press the FM or AM (MW/LW) button.
- 6-3. Tune to the desired frequency by pressing the UP/DOWN TUNING button.
- 6-4. To select the preset stations 1 – 8 or 9 – 16, press the PRESET SELECT button.
- 6-5. Press the MEMORY button.
- 6-6. Press one of the PRESET STATIONS buttons within 5 seconds after pressing the MEMORY button.

#### Note:

- No sound is output when the PRESET STATIONS buttons are pressed; this is to prevent noise and is not a malfunction.

Carry out the same pretuning procedure (steps 6-3, 6-4, 6-5, 6-6) for the remaining channels. Pretuning is possible to up to 16 stations. Press the desired PRESET STATIONS button when you want to listen to that station.

#### Notes:

- A total 32 stations (FM, AM (MW/LW)) can be preset by changing the setting of the PRESET SELECT button (1 – 8, 9 – 16).

## BEDIENUNG

### WIEDERGABE VON RADIOSENDUNGEN ODER SCHALLPLATTEN

1. Den Lautstärkereger auf Minimum stellen und dann den POWER-Schalter auf ON (—) drücken.
2. Zum Hören einer Sendung die TUNER-Taste betätigen.
3. Zum Hören eines MW/LW-Senders den AM (MW/LW)-Schalter drücken.
- 4-1. Zum Hören eines UKW-Senders den FM-Schalter drücken.
- 4-2. Den FM MODE/MUTE-Schalter auf AUTO/ON drücken.

#### Hinweis:

- In Gebieten mit schwachen Sendersignalen den FM MODE/MUTE-Schalter auf MONO/OFF stellen. Die UKW-Sender werden dann in Mono gehört, aber die Störgeräusche sind reduziert.

5. Mit dem UP/DOWN TUNING-Regler einen Sender einstellen.  
In Gebieten mit guten Empfangsbedingungen leuchtet die TUNING-Anzeige, wenn ein UKW- oder MW/LW-Sender empfangen wird. Wenn ein UKW-Stereosender empfangen wird, leuchtet die FM STEREO-Anzeige.

#### Belegung der Stationstasten

- 6-1. Die POWER-Taste auf ON (—) stellen und die Frequenz des gewünschten Senders überprüfen.
- 6-2. Die FM- oder AM (MW/LW)-Taste betätigen.
- 6-3. Durch Betätigen der UP/DOWN TUNING-Taste die gewünschte Frequenz einstellen.
- 6-4. Zur Vorwahl die PRESET-SELECT-Taste auf 1 – 8 oder 9 – 16 stellen.
- 6-5. Die MEMORY-Taste betätigen.
- 6-6. Nach Betätigen der MEMORY-Taste innerhalb von 5 Sekunden eine der PRESET STATIONS-Taste drücken.

#### Hinweis:

- Bei Betätigen der PRESET STATIONS-Tasten erfolgt keine Tonwiedergabe. Dies ist keine Fehlfunktion, sondern dient der Unterdrückung von Störgeräuschen.

Die Bedienschritte zur Senderprogrammierung (Schritte 6-3, 6-4, 6-5, 6-6) der übrigen Kanäle wiederholen. Bis zu 16 Sender können programmiert werden. Zum Abruf eines programmierten Senders die entsprechende PRESET STATIONS-Taste betätigen.

#### Hinweise:

- Insgesamt können 32 Stationen (UKW, AM (MW/LW)) gespeichert werden, wenn die PRESET SELECT-Taste umgestellt wird (1 – 8, 9 – 16).

## FONCTIONNEMENT

### ECOUTE D'ÉMISSIONS OU DE DISQUES

1. Enfoncer l'interrupteur POWER sur ON (—) après avoir placé la commande de volume au minimum.
2. Pour écouter une émission, appuyer sur la touche TUNER.
3. Pour écouter une émission AM (PO/GO), enfoncer le commutateur AM (PO/GO).
- 4-1. Pour écouter une émission FM, enfoncer le commutateur FM.
- 4-2. Enfoncer le commutateur FM MODE/MUTE sur AUTO/ON.

#### Remarque:

- Dans les régions où les signaux sont faibles, enfoncer le commutateur FM MODE/MUTE sur MONO/OFF. Les émissions FM seront audibles en mono mais le bruit sera réduit.

5. Syntoniser sur la station avec la commande UP/DOWN TUNING.

Dans les régions où les signaux sont optima, l'indicateur TUNING s'allume quand une émission FM ou AM (PO/GO) est reçue. Si c'est une émission FM stéréo, l'indicateur FM STEREO s'allume.

#### Préréglage de stations sélectionnées

- 6-1. Placer la touche POWER sur ON (—) et vérifier la fréquence de la station voulue.
- 6-2. Presser la touche FM ou AM (MW/LW).
- 6-3. Syntoniser la fréquence voulue avec la touche UP/DOWN TUNING.
- 6-4. Enfoncer pour sélectionner les stations 1 – 8 ou 9 – 16 avec la touche PRESET SELECT.
- 6-5. Appuyer sur la touche MEMORY.
- 6-6. Appuyer sur l'une des touches PRESET STATIONS dans les 5 secondes qui suivent la pression sur la touche MEMORY.

#### Remarque:

- Il n'y a pas de son en sortie quand les touches PRESET STATIONS sont appuyées; c'est pour éviter le bruit et ce n'est pas un défaut.

Répéter le processus de présélection (étapes 6-3, 6-4, 6-5, 6-6) pour les canaux restants. La présélection est possible pour jusqu'à 16 stations. Presser la touche PRESET STATIONS voulue quand vous voulez écouter cette station.

#### Remarques:

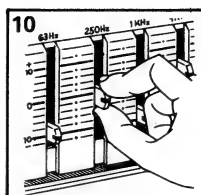
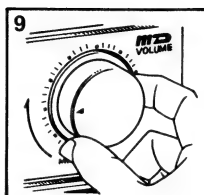
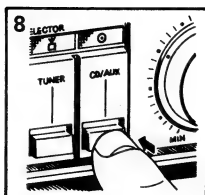
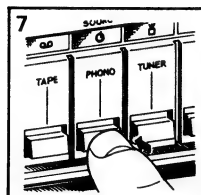
- Un total de 32 stations (FM, AM (PO/GO)) peuvent être préréglées en changeant la position du commutateur de sélection de préréglage (1 – 8, 9 – 16).



- The broadcast received before the power is shut off will again be received when the power is reapplied because the memory circuit functions retain preset stations. This memory is held for about one week in normal conditions, but may be erased after exceeding this period. In this case, preset stations again.

- Der bei Geräteabschaltung eingestellte Sender ist bei Wiedereinschaltung erneut verfügbar, da ein Speicher diese Einstellung beibehält. Unter normalen Betriebsbedingungen wird diese Speicherung für ca. eine Woche beibehalten, über diesen Zeitraum hinaus erfolgt Löschung. In diesem Fall die Sender erneut speichern.

- L'émission reçue avant de couper l'alimentation sera à nouveau reçue quand l'alimentation sera remise car les fonctions du circuit mémoire maintiennent les stations préréglées. Cette mémoire est maintenue pendant environ une semaine dans des conditions normales, mais elle peut être effacée après avoir dépassé cette période. Dans ce cas, préréglé à nouveau les stations.

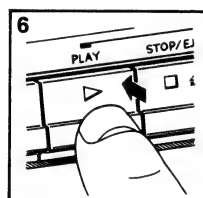
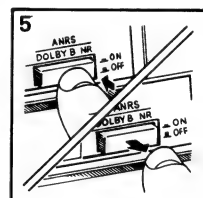
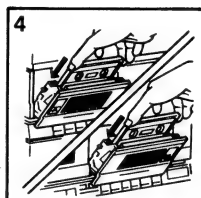
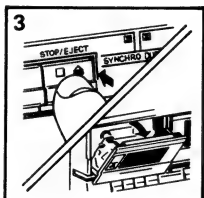
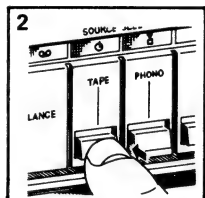
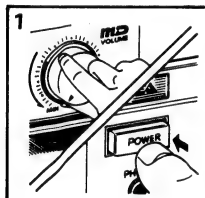


- To listen to a record, Press the PHONO button. Operate the turntable. Concerning the operation of the turntable, read its instruction book.
- When listening to a source connected to the CD/AUX terminals (CD player, etc.), press the CD/AUX button.
- Set the volume knob to the desired level.
- Adjust the SEA knobs to obtain the tone required.

- Zum Hören von Schallplatten den PHONO-Schalter drücken. Den Plattenspieler wie erforderlich bedienen. Siehe die Bedienungsanleitung des Plattenspielers.
- Zum Hören einer Signalquelle, die an den CD/AUX-Buchsen angeschlossen ist (Digitalspieler usw.) den CD/AUX-Schalter drücken.
- Die Lautstärke wie gewünscht einstellen.
- Den Klang mit den SEA-Reglern einstellen.

- Pour écouter un disque, enfoncer l'interrupteur PHONO. Faire fonctionner la platine tourne-disque. En ce qui concerne de fonctionnement, voir son manuel d'instructions.
- Quand vous écoutez une source raccordée aux bornes CD/AUX (lecteur de disque numérique etc.), enfoncer le commutateur CD/AUX.
- Régler la commande de volume à votre convenance.
- Régler les commandes S.E.A. pour obtenir la tonalité voulue.

#### LISTENING TO TAPES



- Press the POWER button to ON (—) after setting the volume knob to minimum.
- Press the TAPE button.

#### Preparation for playing back a tape

- Either tape deck A or B can be used for playback. Press the STOP (■)/EJECT (▲) button of the tape deck selected to open the cassette door.
  - Insert cassettes.
  - If a tape recorded with ANRS or DOLBY B Noise Reduction System is used, press the ANRS/DOLBY B NR button to ON (—). If not, set this button to OFF (■).
- The selection of metal or normal tape is automatic for tape deck A and B.

#### When playing back a tape

- Press the PLAY (▶) button.

#### Note:

- It is not possible to play tape decks A and B at the same time. If you set both decks to the play mode, only tape deck A's sound is heard.

#### BANDWIEDERGABE

- Den Lautstärkeregler auf Minimum stellen und dann den POWER-Schalter auf ON (—) drücken.
- Die TAPE-Taste drücken.

#### Wiedergabe einer Cassette

- Für Wiedergabe kann Deck A oder Deck B verwendet werden. Die STOP (■)/EJECT (▲)-Taste dieses Decks drücken, um das Cassettenfach zu öffnen.
  - Cassetten einlegen.
  - Wenn eine Cassette verwendet wird, die mit ANRS oder DOLBY B Rauschunterdrückung aufgenommen wurde, den ANRS/DOLBY B NR-Schalter auf ON (—) drücken.
- Für Cassetten ohne Rauschunterdrückung diesen Schalter auf OFF (■) stellen.
- Die Wahl für Metall- oder Normalband erfolgt für Deck A und B automatisch.

#### Wiedergabe einer Seite

- Die PLAY (▶)-Taste betätigen.

#### Hinweis:

- Deck A und Deck B können nicht gleichzeitig für Wiedergabebetrieb verwendet werden. Sind beide Decks auf Wiedergabe geschaltet, ist nur der Ton von Deck A verfügbar.

#### ECOUTE DE BANDES

- Enfoncer l'interrupteur POWER sur ON (—) après avoir placé la commande de volume au minimum.
- Enfoncer la touche TAPE.

#### Préparatifs pour lire une bande

- La platine A ou B peut être utilisée pour la lecture. Enfoncer la touche STOP (■)/EJECT (▲) de la platine sélectionnée pour ouvrir le compartiment cassette.
  - Insérer les cassettes.
  - Si une bande enregistrée avec le système de réduction du bruit ANRS ou DOLBY B est utilisée, enfoncer le commutateur ANRS/DOLBY B NR sur ON (—); Dans le cas contraire, placer ce commutateur sur OFF (■).
- Du fait que la sélection de bande métal ou normale est automatique pour la platine A et B.

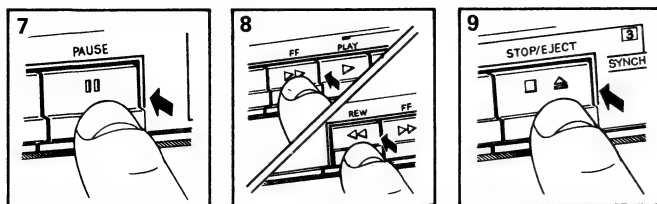
#### Pour lire une bande seulement

- Enfoncer la touche PLAY (▶).

#### Remarque:

- Il n'est pas possible de lire la bande des platines A et B en même temps. Si vous mettez les deux platines en mode de lecture, seul le son de la platine A sera entendu.





#### When interrupting tape play temporarily (tape deck B)

7. Press the PAUSE (||) button. To release this function, press it again.

#### When fast forwarding or rewinding a tape

8. To fast forward a tape, press the FF (▶▶) button and to rewind a tape, press the REW (◀◀) button.

#### Note:

- When the tape reaches its end, press the STOP (■)/EJECT (▲) button.

#### Stopping a tape

9. Press the STOP (■)/EJECT (▲) button.

#### Unterbrechung der Wiedergabe (Deck B)

7. Die PAUSE-Taste (||) drücken. Zum Fortsetzen der Wiedergabe die Taste noch einmal drücken.

#### Schnellvorspulen oder Zurückspulen

8. Zum Schnellvorspulen die FF-Taste (▶▶) und zum Zurückspulen die REW-Taste (◀◀) drücken.

#### Hinweis:

- Bei Erreichen des Bandendes die STOP (■)/EJECT (▲)-Taste betätigen.

#### Stoppen des Bandes

9. Die STOP (■)/EJECT (▲)-Taste drücken.

#### Pour interrompre momentanément la lecture (platine B)

7. Enfoncer la touche PAUSE (||). Pour relâcher cette fonction, la réenfoncer.

#### Pour avancer rapidement ou réembobiner la bande

8. Pour avancer rapidement la bande, enfoncer la touche FF (▶▶) et pour la réembobiner, la touche REW (◀◀).

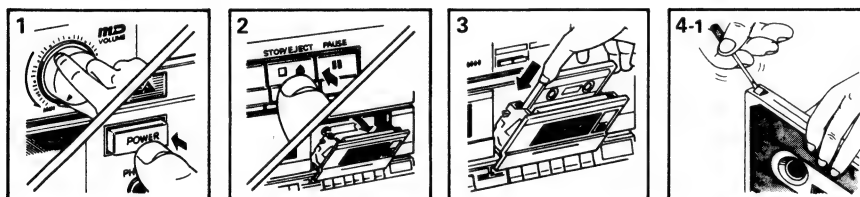
#### Remarque:

- Lorsque la bande atteint sa fin, enfoncer la touche STOP (■)/EJECT (▲).

#### Pour arrêter la bande

9. Enfoncer la touche STOP (■)/EJECT (▲).

## RECORDING



Use tape deck B for recording. It is not necessary to adjust the recording level because an auto level control circuit is built into this unit. When SEA recording is not performed, set the SEA knobs to "0".

1. Press the POWER button to ON (—) after setting the volume knob to minimum beforehand.
2. Press STOP (■)/EJECT (▲) to open the cassette door. If the tape is running, press the STOP (■)/EJECT (▲) button to stop the tape and press STOP (■)/EJECT (▲) to open the cassette door.
3. Insert a cassette.
- 4-1. Cassettes are provided with protective tabs. After recording, break the left tab with side A toward you when side A is required to be protected, for side B, break the left tab with side B toward you. This avoids accidental erasure. When a tape with its tabs broken is used, it is impossible to record on it.

## AUFNAHME

Für Aufnahme Deck B verwenden. Der Aufnahmepegel braucht nicht manuell geregelt werden, da dieses Gerät über eine automatische Aufnahmeeinstellung verfügt.

Wenn SEA-Aufnahme nicht erforderlich ist, die SEA-Regler auf "0" stellen.

1. Nach Rückstellung des Lautstärkereglers auf seine Minimalposition, die POWER-Taste auf ON (—) stellen.
2. Zum Öffnen des Cassettenhalters STOP (■)/EJECT (▲) drücken. Bei laufendem Band zuerst die STOP (■)/EJECT (▲) Taste betätigen, dann STOP (■)/EJECT (▲) drücken.
3. Eine Cassette einlegen.
- 4-1. Cassetten sind mit Löschschutzlaschen versehen. Soll die Aufnahme vor Löschung geschützt werden, die Lasche herausbrechen. Für Seite A die linke Lasche herausbrechen, wenn Seite A in Ihre Richtung gehalten wird, entsprechend für Seite B die linke Lasche herausbrechen, wenn Seite B in Ihre Richtung gehalten wird. Eine Cassette mit entfernten Laschen kann nicht bespielt werden.

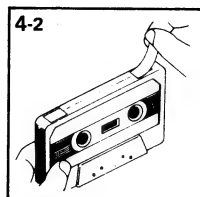
## ENREGISTREMENT

Utiliser la platine B pour l'enregistrement. Il n'est pas nécessaire de régler le niveau d'enregistrement parce qu'un circuit de commande de niveau automatique est incorporé dans cet appareil.

Si vous n'effectuez pas d'enregistrement SEA, mettre le bouton SEA sur "0".

1. Appuyer sur la touche POWER sur ON (—) après avoir réglé le bouton de volume sur le minimum.
2. Appuyer sur STOP (■)/EJECT (▲) pour ouvrir le compartiment cassette. Si la bande défile, appuyer sur la touche STOP (■)/EJECT (▲) pour arrêter la bande et appuyer sur STOP (■)/EJECT (▲) pour ouvrir le compartiment cassette.
3. Introduire une cassette.
- 4-1. Les cassettes sont munies de languettes de sécurité. Après enregistrement, casser la languette de gauche, la face A tournée vers vous si vous voulez protéger l'enregistrement de la face A, pour la face B, casser la languette de gauche, la face B tournée vers vous. Ceci évite l'effacement accidentel. En utilisant une bande avec les languettes cassées, il est impossible d'enregistrer.





4-2. When a cassette with its tabs broken off is to be used for recording, seal the holes with adhesive tape.

#### Notes:

- Metal and normal tapes are automatically switched.
- Using a CrO<sub>2</sub> or Ferri-chrome tape is not recommended because this unit does not have the required characteristics.

5. To record with ANRS or DOLBY B Noise Reduction, set the ANRS/DOLBY B NR button to ON (—).

#### When recording a broadcast

6-1. Choose the desired broadcast.

For an FM broadcast, press the FM button. For an AM broadcast, press the AM (MW/LW) button.

Concerning the method of tuning the broadcast, follow steps 3 – 6 of "LISTENING TO BROADCASTS OR RECORDS" on page 27.

6-2. When recording an AM (MW/LW) broadcast, beats may occur.

Set the BEAT CUT knob located on the rear panel to "1" or "2" so that beats are eliminated.

#### When recording a record

7-1. Press the PHONO button.

7-2. Operate the turntable.

Concerning the operation of the turntable, refer to its instruction book.

#### When recording a source from the unit connected to the CD/AUX

8. Press the CD/AUX button and play the unit.

#### When performing SEA recording

9. Adjust the SEA knobs as required.

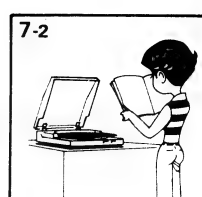
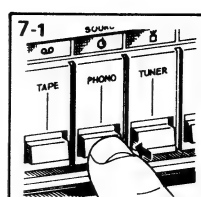
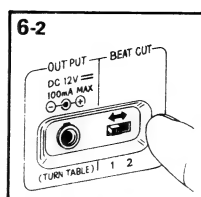
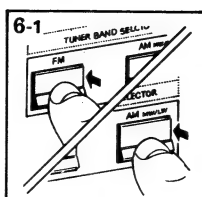
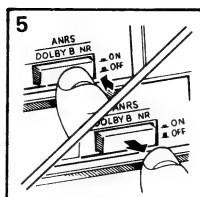
#### Operation of tape deck B for recording

10. When the REC (●) and PLAY (▶) buttons are pressed, the recording starts immediately.

11. To cut an unwanted part, press the PAUSE (■) button; the pause mode is set and the recording is interrupted. To restart the recording, press the PAUSE (■) button.

#### Notes:

- Do not press the TAPE SYNCHRO button during recording.
  - If a second tape deck is operated while a tape deck is playing back or recording, the tape running speed of the first tape deck may temporarily change.
- Therefore, operate a second tape deck only after the first has stopped playing or recording.



4-2. Soll eine Cassette mit entfernten Laschen für Aufnahmen verwendet werden, die Öffnungen mit Klebeband abdecken.

#### Hinweise:

- Zwischen Metall- und Normal-Tonbandtypen wird automatisch umgeschaltet.
- Die Verwendung von CrO<sub>2</sub> oder Ferrichrombändern wird nicht empfohlen, da dieses Gerät nicht die erforderliche Voreinstellung durchführen kann.

5. Aufnahmen mit ANRS/Dolby B-Rauschunterdrückung können bei ON-Position (—) des ANRS/DOLBY B NR-Schalters durchgeführt werden.

#### Aufnahme einer Radiosendung

6-1. Den gewünschten Sender einstellen.

Für UKW die FM-Taste, für AM die AM (MW/LW)-Taste betätigen.

Angaben zur Senderabstimmung siehe Seite 27, Schritte 3 – 6 von Abschnitt "WIEDERGABE VON RADIOSENDUNGEN ODER SCHALLPLATTEN".

6-2. Bei Aufnahme von AM (MW/LW)-Sendungen können Interferenzen auftreten. In diesem Fall den BEAT CUT-Regler an der Rückplatte auf Position "1" oder "2" stellen, um die Interferenzstörungen zu eliminieren.

#### Aufnahme einer Schallplatte

7-1. Die PHONO-Taste betätigen.

7-2. Den Plattenspieler betätigen.

Angaben zur Bedienung des Plattenspielers finden Sie in dessen Bedienungsanleitung.

#### Aufnahme einer an den CD/AUX-Buchsen angeschlossenen Signalquelle

8. Die CD/AUX-Taste betätigen und das angeschlossene Gerät auf Wiedergabe schalten.

#### SEA-Aufnahme

9. Die SEA-Regler wie erforderlich einstellen.

#### Aufnahmebetrieb mit Deck B

10. Bei Betätigen von REC (●) und PLAY (▶) Taste startet die Aufnahme unmittelbar.

11. Zur Aufnahmeunterbrechung die PAUSE (■) Taste betätigen.

Das Gerät ist auf Pause geschaltet, es findet keine Aufnahme statt. Zur Aufnahme-fortsetzung die PAUSE (■) Taste betätigen.

#### Hinweise:

- Die TAPE SYNCHRO-Taste nicht bei Aufnahme betätigen.
  - Wird bei Wiedergabe oder Aufnahme mit einem Deck ein weiteres Deck betrieben, kann die Bandlaufgeschwindigkeit des ersten Decks kurzzeitig schwanken.
- Daher ein zweites Deck erst betreiben, wenn die Wiedergabe oder Aufnahme des ersten Decks beendet ist.

4-2. Pour enregistrer avec une cassette ayant les languettes cassées, boucher les trous avec du ruban adhésif.

#### Remarques:

- Pour les bandes, la sélection "métal" ou "normal" se fait automatiquement.
- L'utilisation d'une bande CrO<sub>2</sub> ou Ferri-chrome n'est pas conseillée parce que l'appareil n'a pas les caractéristiques exigées.

5. Pour enregistrer avec la réduction du bruit ANRS ou DOLBY B, placer la touche ANRS/DOLBY B NR sur ON (—).

#### Pour enregistrer une émission

6-1. Choisir la station voulue.

Pour une émission FM, appuyer sur la touche FM.

Pour une émission AM, appuyer sur la touche AM (MW/LW).

Pour la syntonisation des stations, suivre les étapes 3 – 6 d'"ECOUTE D'ÉMISSIONS OU DE DISQUES", page 27.

6-2. Lors de l'enregistrement d'une émission AM (MW/LW), des battements risquent de se produire. Dans ce cas, placer le commutateur BEAT CUT situé sur le panneau arrière sur "1" ou "2" pour les éliminer.

#### Pour enregistrer un disque

7-1. Appuyer sur la touche PHONO.

7-2. Faire fonctionner la platine tourne-disque. En ce qui concerne le fonctionnement de cette platine, se référer à son manuel d'instructions.

#### Pour enregistrer une source d'un appareil raccordé à CD/AUX

8. Appuyer sur la touche CD/AUX et faire fonctionner l'appareil.

#### Pour effectuer un enregistrement S.E.A.

9. Régler les boutons SEA comme voulu.

#### Fonctionnement de la platine B en enregistrement

10. Quand les touches REC (●) et PLAY (▶) sont appuyées, l'enregistrement commence immédiatement.

11. Pour éliminer des sections que vous ne désirez pas, appuyer sur la touche PAUSE (■); le mode pause est engagé et l'enregistrement est interrompu. Pour reprendre l'enregistrement, appuyer sur la touche PAUSE (■).

#### Remarques:

- Ne pas appuyer sur le bouton TAPE SYNCHRO pendant l'enregistrement.
  - Si une seconde platine de magnétophone fonctionne pendant qu'une platine de magnétophone lit ou enregistre, la vitesse de défilement de la bande de la première platine peut changer temporairement.
- Par conséquent, faire fonctionner une seconde platine de magnétophone seulement après que la première se soit arrêtée de lire ou d'enregistrer.



- When the power is turned off during playback or recording of a tape, the pinch roller and capstan stay engaged, applying pressure to the tape, which results in malfunction. Therefore, be sure to turn the power off only after stopping playback or recording.

- Wird während Wiedergabe oder Aufnahme die Spannungsversorgung abgeschaltet, bleiben Andruckrolle und Capstan eingerastet und üben Druck auf das Band aus. Dies kann zu Schäden führen. Daher stets erst die Spannungsversorgung abschalten, wenn zuvor von Aufnahme oder Wiedergabe auf Stop geschaltet wurde.

- Si l'alimentation est coupée pendant la lecture ou l'enregistrement de la bande, le galet presseur et le cabestan restent engagés, exerçant une pression sur la bande, qui va créer une déformation. Par conséquent, s'assurer de bien couper l'alimentation après avoir arrêté la lecture ou l'enregistrement.

## ERASING

Recording on a cassette automatically erases the previous sound.

### To erase without making a new recording

Set the SOURCE SELECTOR to the tape position. Then, set tape deck B to the recording mode.

## LÖSCHEN

Bei Aufnahme wird automatisch die vorhandene Bespielung gelöscht.

### Löschung ohne Neuaufnahme

Den SOURCE SELECTOR auf die Position für Band einstellen. Dann Deck B auf Aufnahme schalten.

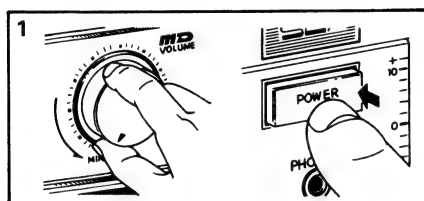
## EFFACEMENT

L'enregistrement d'une cassette efface automatiquement le son enregistré précédemment.

### Pour effacer sans faire un nouvel enregistrement

Placer SOURCE SELECTOR sur la position bande. Puis, placer la platine à cassette B en mode d'enregistrement.

## DUBBING



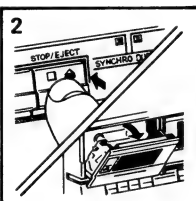
Dubbing means to copy a tape to another tape. Dubbing can be done from tape deck A to tape deck B.

1. Press the POWER button to ON (—) after setting the VOLUME knob to minimum.
2. Press the STOP (■)/EJECT (▲) buttons of tape deck A and B to open the cassette doors.
3. Insert cassettes.
4. Press the PLAY (▶) button of tape deck A to scan to the tune to be copied.
5. Set the ANRS/DOLBY B NR button to OFF.
6. Set tape deck B to the record mode (press (●) and (▶) buttons).
7. Set tape deck A to the play mode (press the (▶) button).

### Note:

- Pressing the source select buttons during dubbing switches the source for recording.

## ÜBERSPIELEN



Überspielen bedeutet Kopieren einer Bandaufnahme.

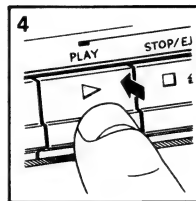
Überspielen ist von Deck A auf Deck B möglich.

1. Nach Rückstellung des Lautstärkereglers auf seine Minimalposition die POWER-Taste auf ON (—) stellen.
2. Zum Öffnen der Cassettenhalter STOP (■)/EJECT (▲) von Deck A und B betätigen.
3. Cassetten einlegen.
4. Zur Auswahl des zu kopierenden Titels die PLAY (▶) Taste von Deck A betätigen.
5. Die ANRS/DOLBY B NR-Taste auf OFF einstellen.
6. Deck B auf Aufnahme schalten (die (●) und (▶) Taste betätigen).
7. Deck A auf Wiedergabe schalten (die (▶)-Taste betätigen).

### Hinweis:

- Durch Betätigen der Signalquellenschalter wird die Zuspieldquelle bei Überspielbetrieb umgeschaltet.

## COPIE



C'est la copie d'une bande sur une autre.

La copie peut être faite de la platine A vers la platine B.

1. Appuyer sur la touche POWER sur ON (—) après avoir réglé le bouton VOLUME sur le minimum.
2. Appuyer sur les touche STOP (■)/EJECT (▲) des platines A et B pour ouvrir les compartiments cassette.
3. Introduire les cassettes.
4. Appuyer sur la touche PLAY (▶) de la platine A pour rechercher le morceau à copier.
5. Régler la touche ANRS/DOLBY B NR sur OFF.
6. Placer la platine B dans le mode d'enregistrement (appuyer sur les touches (●) et (▶)).
7. Placer la platine A dans le mode lecture (appuyer sur la touche (▶)).

### Remarque:

- En appuyant sur les touches de sélection de source pendant la copie, la source est commutée sur l'enregistrement.





#### To dub while listening to another source (TAPE SYNCHRO dubbing)

Press the TAPE SYNCHRO button. The indicator above it lights. Concerning the method of recording, follow steps 2 – 7 of "DUBBING" on page 35.

#### Notes:

- The NR SYSTEM button cannot be used in this case.
- SEA recording is not possible in this case.

#### Überspielen bei gleichzeitiger Wiedergabe einer anderen Signalquelle (TAPE SYNCHRO-Überspielen)

Die TAPE SYNCHRO-Taste betätigen. Die Anzeige darüber leuchtet. Angaben zum Aufnahmebetrieb siehe Schritte 2 – 7 von Abschnitt "ÜBERSPIELEN" auf Seite 35.

#### Hinweise:

- In diesem Fall ist die NR SYSTEM-Taste ohne Funktion.
- In diesem Fall ist keine SEA-Aufnahme möglich.

#### Pour copier tout en écoutant une autre source (Copie TAPE SYNCHRO)

Appuyer sur la touche TAPE SYNCHRO. L'indicateur situé au-dessus s'allume. Concernant la méthode d'enregistrement, suivre les étapes 2 à 7 de "COPIE" en page 35.

#### Remarques:

- La touche NR SYSTEM ne peut pas être utilisée dans ce cas.
- L'enregistrement SEA n'est pas possible dans ce cas.

## CASSETTE TAPE

#### • Tape type

The following two types of tape can be used for this unit.

- NORMAL (TYPE I)
- METAL (TYPE IV)

The following tape are available from JVC.

Normal tape (TYPE I)	UFI, FI
Metal tape (TYPE IV)	ME-PⅡ

#### Note:

- Using a Chrome (TYPE II) or Ferri-chrome tape is not recommended because this unit does not have the required characteristics.

## CASSETTENBAND

#### • Bandsorte

Die folgenden beiden Bandsorten können für dieses Gerät verwendet werden.

- NORMAL (TYPE I)
- METAL (TYPE IV)

JVC bietet folgende Bandsorten an.

Normalband (TYPE I)	UFI, FI
Metallband (TYPE IV)	ME-PⅡ

#### Hinweis:

- Die Verwendung von Chrom-(TYPE II) oder Ferrichrombändern wird nicht empfohlen, da dieses Gerät nicht die erforderliche Voreinstellung durchführen kann.

## CASSETTE

#### • Type de bande

Les deux types de bandes suivants peuvent être utilisés pour cet appareil.

- NORMAL (TYPE I)
- METAL (TYPE IV)

Les bandes suivantes sont disponibles chez JVC.

Bande normale (TYPE I)	UFI, FI
Bande métal (TYPE IV)	ME-PⅡ

#### Remarque:

- L'utilisation d'une bande Chrome (TYPE II) ou Ferri-chrome n'est pas conseillée parce que l'appareil n'a pas les caractéristiques exigées.



## MAINTENANCE

### Head cleaning

Head cleaning is required to assure optimum performance.

The heads which come into contact with the tape attract minute particles of dust and become dirty.

If the heads are dirty . . . .

- Sound quality becomes poor.
- The sound level drops.
- Recording becomes impossible.
- Sound is interrupted.
- Previous recordings are not erased.

Because of this, keep the heads clean.

Wipe the heads with a cleaning stick or cloth moistened with alcohol (not too much).

### Notes:

- Do not bring any iron object, magnet screw-driver, etc. close to the heads.
- Do not use force so the right head positions are kept.
- Make sure to turn the power off when cleaning.

### Cleaning the pinch roller and capstan

Wipe the pinch roller and capstan referring to "Head cleaning".

### Demagnetizing

If the heads become magnetized, noise will occur and high frequency response will deteriorate. In this case, set the POWER button to OFF and demagnetize the heads with a head demagnetizer. For more details, refer to the instruction book of the demagnetizer.

## WARTUNG

### Kopfreinigung

Um eine optimale Leistung zu gewährleisten, müssen die Köpfe regelmäßig gereinigt werden. Durch den Kontakt mit dem Band sammeln sich auf den Köpfen Staubpartikel an.

Wenn die Köpfe schmutzig sind . . . .

- Verschlechtert sich die Klangqualität.
- Verringert sich die Lautstärke.
- Ist Aufnehmen nicht mehr möglich.
- Wird der Ton unterbrochen.
- Werden bei Neuaufnahmen die alten Aufnahmen nicht vollständig gelöscht.

Aus diesen Gründen müssen die Köpfe sauber gehalten werden.

Die Köpfe mit einem Wattestäbchen oder einem Tuch, das mit wenig Alkohol befeuchtet wurde, reinigen.

### Hinweise:

- Keine Gegenstände aus Eisen, magnetische Schraubenzieher usw. in die Nähe der Köpfe bringen.
- Nicht zu stark drücken, um die Positionen der Köpfe nicht zu verändern.
- Vor der Reinigung das Gerät ausschalten.

### Reinigung der Andruckrolle und der Tonwelle

Die Andruckrollen und Tonwellen auf die gleiche Weise wie die Köpfe reinigen, siehe "Kopfreinigung".

### Entmagnetisierung

Wenn die Köpfe magnetisiert sind, treten Störgeräusche auf und die hohen Frequenzen werden schlechter. In diesem Fall das Gerät ausschalten und die Köpfe mit einem Tonkopf-Entmagnetisierer entmagnetisieren. Für genaue Einzelheiten siehe die Bedienungsanleitung des Entmagnetisierers.

## ENTRETIEN

### Nettoyage des têtes

Le nettoyage des têtes est nécessaire pour garantir de bonnes performances. Les têtes en contact avec la bande retiennent de minuscules particules de poussière et se salissent.

Si les têtes sont sales . . . . .

- La qualité sonore est mauvaise.
- Le niveau sonore baisse.
- L'enregistrement devient impossible.
- Le son est interrompu.
- Les enregistrements précédents ne sont pas effacés.

A cause de ces conséquences, garder les têtes propres.

Essuyer les têtes avec un coton-tige ou un chiffon imbibé d'alcool (en petite quantité).

### Remarques:

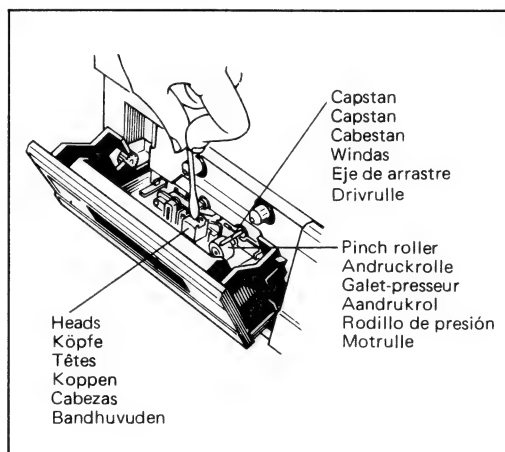
- Ne pas approcher d'objet en fer, de tournevis magnétisé etc. des têtes.
- Ne pas utiliser la force pour que la position des têtes ne soit pas modifiée.
- Bien couper l'alimentation lors du nettoyage.

### Nettoyage du galet presseur et du cabestan

Les essuyer en vous référant à "Nettoyage des têtes".

### Démagnétisation

Si les têtes se magnétisent, du bruit se produira et la réponse des hautes fréquences se détériorera. Dans ce cas, mettre l'interrupteur POWER sur OFF et démagnétiser les têtes avec un démagnétiseur de tête. Pour plus de détails, se référer à son manuel d'instructions.



## TROUBLESHOOTING

What appears to be a malfunction may not always be serious.

Make sure first . . . .

### Recording is impossible

Is the protective tab broken?

- Seal the hole with adhesive tape.

## STÖRUNGSSUCHE

Was wie eine Fehlfunktion erscheint, muß nicht immer ernsthaft sein.

Überprüfen Sie zuerst . . . .

### Aufnahme ist nicht möglich

Ist die Aufnahmeschutzklinge herausgebrochen?

- Die Öffnung mit einem Klebeband verschließen.

## EN CAS DE DIFFICULTE

Ce qui semble au départ être un mauvais fonctionnement n'est pas toujours très sérieux.

Assurez-vous d'abord que . . . .

### L'enregistrement est impossible

La languette de sécurité est-elle brisée?

- Reboucher le trou avec de l'adhésif.



## SPECIFICATIONS

## AMPLIFIER SECTION

Output power : 30 watts per channel, min.  
RMS, both channels driven,  
into 8 ohms at 1 kHz with no  
more than 0,9 % total harmonic  
distortion.

Input sensitivity/impedance

PHONO : 3 mV/47 kohms  
CD/AUX : 300 mV/47 kohms

S.E.A. graphic equalizer

Center frequencies: 63 Hz, 250 Hz, 1 kHz,  
4 kHz, 16 kHz

Control range : +10 dB  $\pm$  1 dB,  
-10 dB  $\pm$  1 dB

## FM TUNER SECTION

Tuning range : 87,5 MHz — 108,0 MHz

Usable sensitivity : 0,95  $\mu$ V/75 ohms,  
1,5  $\mu$ V/75 ohms (DIN)

Signal to noise ratio : Mono 80 dB (A-net)  
Stereo 73 dB (A-net)  
Mono 72 dB (DIN)  
Stereo 64 dB (DIN)

Stereo separation : 40 dB at 1 kHz,  
35 dB at 1 kHz (DIN)

## AM TUNER SECTION

## MW

Tuning range

Channel space : 522 kHz — 1629 kHz  
9 kHz 522 kHz — 1611 kHz  
(for Italy only)

Channel space : 530 kHz — 1630 kHz  
10 kHz 530 kHz — 1710 kHz  
(for USA & Canada only)

Sensitivity : 300  $\mu$ V/m (at 1000 kHz  
or 999 kHz)

## LW (DR-E2LBK only)

Tuning range : 144 kHz — 353 kHz  
144 kHz — 290 kHz  
(for Italy only)

Sensitivity : 600  $\mu$ V/m (at 245 kHz)

## CASSETTE SECTION

Head Deck A : Metaperm (play)  
Deck B : Metaperm (play/rec)  
Ferrite (erase)

Frequency response : Normal tape: 30 Hz —  
17 kHz (-20 dB rec/play)  
Metal tape: 30 Hz —  
18 kHz (-20 dB rec/play)

Wow and flutter : 0,13 % (WRMS), 0,22 %  
(CCIR WTD)

Signal to noise ratio : 57 dB (metal tape)

## GENERAL

Dimensions : 340(W) x 250(H) x  
235(D) mm  
(13-7/16" x 9-7/8" x  
9-5/16")

Weight : 5,4 kg (11,9 lbs)

Design and specifications subject to change  
without notice.

## TECHNISCHE DATEN

## VERSTÄRKERTEIL

Ausgangsleistung : 30 Watt pro Kanal, min.  
eff., beide Kanäle an 8 Ohm  
bei 1 kHz, bei Klirrfaktor  
nicht über 0,9 %.

Eingangsempfindlichkeit/Impedanz

PHONO : 3 mV/47 kOhm  
CD/AUX : 300 mV/47 kOhm

S.E.A. Graphic Equalizer

Mittenfrequenzen : 63 Hz, 250 Hz, 1 kHz,  
4 kHz, 16 kHz

Regelbereich : +10 dB  $\pm$  1 dB  
-10 dB  $\pm$  1 dB

## UKW-TUNERTEIL

Abstimmbereich : 87,5 MHz — 108,0 MHz

Nutzbare Empfindlichkeit : 0,95  $\mu$ V/75 Ohm,  
1,5  $\mu$ V/75 Ohm (DIN)

Störspannungsabstand : Mono 80 dB (A-Netzwerk)  
Stereo 73 dB (A-Netzwerk)  
Mono 72 dB (DIN)  
Stereo 64 dB (DIN)

Stereokanaltrennung : 40 dB bei 1 kHz,  
35 dB bei 1 kHz (DIN)

## AM-TUNERTEIL

## MW

Abstimmbereich

Kanalabstand : 522 kHz — 1629 kHz  
9 kHz 522 kHz — 1611 kHz  
(nur Italien)

Kanalabstand : 530 kHz — 1630 kHz  
10 kHz 530 kHz — 1710 kHz  
(Für U.S.A. und Kanada)

Empfindlichkeit : 300  $\mu$ V/m (bei 1000 kHz  
oder 999 kHz)

## LW (nur DR-E2LBK)

Abstimmbereich : 144 kHz — 353 kHz  
144 kHz — 290 kHz  
(nur Italien)

Empfindlichkeit : 600  $\mu$ V/m (bei 245 kHz)

## KASSETTENTEIL

Kopf Deck A : Metaperm (Wiedergabe)  
Deck B : Metaperm (Wiedergabe/  
Aufnahme)

Ferrit (Löschen)

Frequenzgang : Normalband: 30 Hz —  
17 kHz (-20 dB Aufn./  
Wiederg.)  
Metallband: 30 Hz —  
18 kHz (-20 dB Aufn./  
Wiederg.)

Gleichlaufschwankungen : 0,13 % (WRMS),  
0,22 % (CCIR WTD)

Störspannungsabstand : 57 dB (Metallband)

## ALLGEMEIN

Abmessungen : 340(B) x 250(H) x  
235(T) mm

Gewicht : 5,4 kg

Technische Änderungen vorbehalten.

CARACTERISTIQUES  
TECHNIQUES

## SECTION AMPLIFICATEUR

Puissance : 30 watts par canal, min. RMS,  
de sortie les deux canaux commandés,  
sur 8 ohms à 1 kHz avec pas  
plus de 0,9 % de distorsion  
harmonique totale.

Sensibilité d'entrée/impédance

PHONO : 3 mV/47 kohms  
CD/AUX : 300 mV/47 kohms

Egaliseur graphique S.E.A.

Fréquences : 63 Hz, 250 Hz, 1 kHz,  
centrales 4 kHz, 16 kHz

Gamme de : +10 dB  $\pm$  1 dB,  
commande -10 dB  $\pm$  1 dB

## SECTION SYNTONISEUR FM

Gamme d'accord : 87,5 MHz — 108,0 MHz

Sensibilité : 0,95  $\mu$ V/75 ohms,  
utilisable 1,5  $\mu$ V/75 ohms (DIN)

Rapport signal/bruit : Mono 80 dB (réseau A)  
Stéréo 73 dB (réseau A)  
Mono 72 dB (DIN)  
Stéréo 64 dB (DIN)

Séparation stéréo : 40 dB à 1 kHz, 35 dB à  
1 kHz (DIN)

## SECTION SYNTONISEUR AM

## PO

Gamme d'accord

Espacement de : 522 kHz — 1629 kHz  
canal 9 kHz 522 kHz — 1611 kHz  
(pour l'Italie seulement)

Espacement de : 530 kHz — 1630 kHz  
canal 10 kHz 530 kHz — 1710 kHz  
(Pour E.U. et Canada)

Sensibilité : 300  $\mu$ V/m (à 1000 kHz  
ou 999 kHz)

## GO (DR-E2LBK seulement)

Gamme d'accord : 144 kHz — 353 kHz  
144 kHz — 290 kHz  
(pour l'Italie seulement)

Sensibilité : 600  $\mu$ V/m (à 245 kHz)

## SECTION CASSETTE

Tête Platine A : Metaperm (lecture)  
Platine B : Metaperm (lecture/  
enregistrement)

Réponse en fréquence : Ferrite (effacement)  
Bande normale: 30 Hz —  
17 kHz (-20 dB en-  
registrement/lecture)  
Bande Métal: 30 Hz —  
18 kHz (-20 dB en-  
enregistrement/lecture)

Pleurage et scintillement : 0,13 % (WRMS),  
0,22 % (CCIR WTD)

Rapport signal/bruit : 57 dB (bande métal)

## GENERALES

Dimensions : 340(L) x 250(H) x  
235(P) mm

Poids : 5,4 kg

Présentation et caractéristiques modifiables  
sans préavis.



## POWER SPECIFICATIONS

Areas	Line Voltage & Frequency	Power Consumption
U.S.A.	AC 120 V~, 60 Hz	105 watts 125 VA
Canada		
U.K.	AC 240 V~, 50 Hz	100 watts
Australia		
Continental Europe	AC 220 V~, 50 Hz	
Other Areas	AC 110/120/220/240 V~ selectable, 50/60 Hz	

## SPANNUNGSVERSORGUNG UND LEISTUNGS-AUFNAHME

Gebiete	Netzspannung und Frequenz	Leistungsaufnahme
USA	120 V~ Wechselstrom, 60 Hz	105 Watt 125 VA
Kanada		
Großbritannien	240 V~ Wechselstrom, 50 Hz	100 Watt
Australien		
Kontinental-Europa	220 V~ Wechselstrom, 50 Hz	
Andere Gebiete	110/120/220/240 V~ Wechselstrom schaltbar, 50/60 Hz	

## CARACTERISTIQUES D'ALIMENTATION

Pays	Tension de ligne et fréquence	Consommation
Etats-Unis	CA 120 V~, 60 Hz	105 watts 125 VA
Canada		
Royaume-Uni	CA 240 V~, 50 Hz	100 watts
Australie		
Europe Continentale	CA 220 V~, 50 Hz	
Autres Pays	CA 110/120/220/240 V~ sélectionnable, 50/60 Hz	

## SPANNINGSVEREISTEN

Gebieden	Netzspanning en frekwentie	Stroomverbruik
V.S.	120 V~ wisselstroom, 60 Hz	105 Watt 125 VA
Canada		
Engeland	240 V~ wisselstroom, 50 Hz	100 Watt
Australië		
Europese vasteland	220 V~ wisselstroom, 50 Hz	
Andere gebieden	110/120/220/240 V~ wisselstroom instelbaar, 50/60 Hz	

## ESPECIFICACIONES DE ALIMENTACION

Países	Voltaje y frecuencia	Consumo
EE.UU.	CA 120 V~, 60 Hz	105 vatios 125 VA
Canadá		
R.U.	CA 240 V~, 50 Hz	100 vatios
Australia		
Europa Continental	CA 220 V~, 50 Hz	
Otras áreas	CA 110/120/220/240 V~ seleccionable, 50/60 Hz	

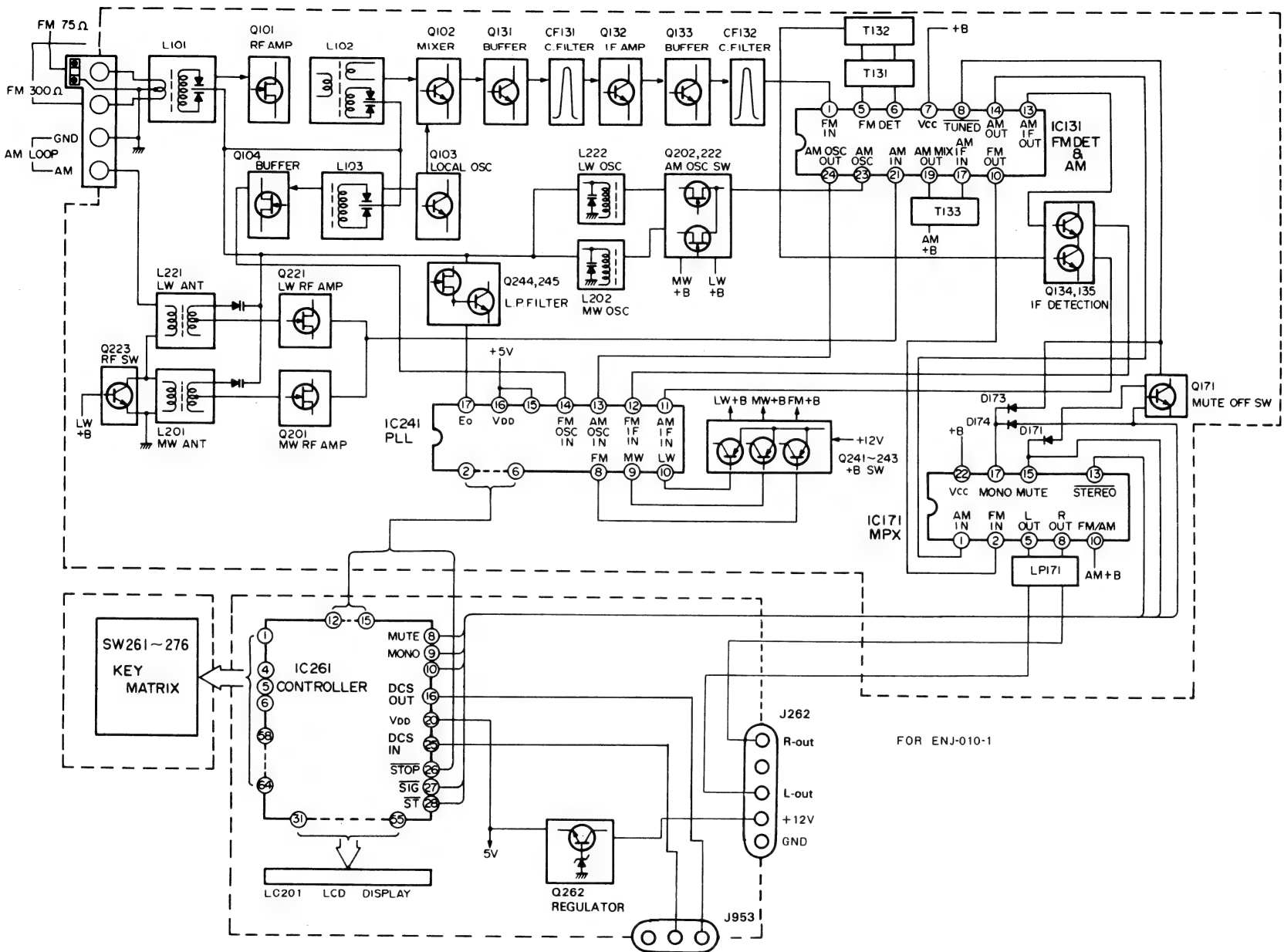
## UPPGIFTER OM NÄTANSLUTNING OCH STRÖMFÖRBRUKNING

Länder	Nätspänning/frekvens	Strömförbrukning
Förenta Staterna	120 V~, 60 Hz växelspanning	105 watt 125 VA
Kanada		
Storbritannien	240 V~, 50 Hz växelspanning	100 watt
Australien		
Kont. Europa	220 V~, 50 Hz växelspanning	
Övriga länder	110/120/220/240 V~, 50/60 Hz växelspanning	



# Block Diagram

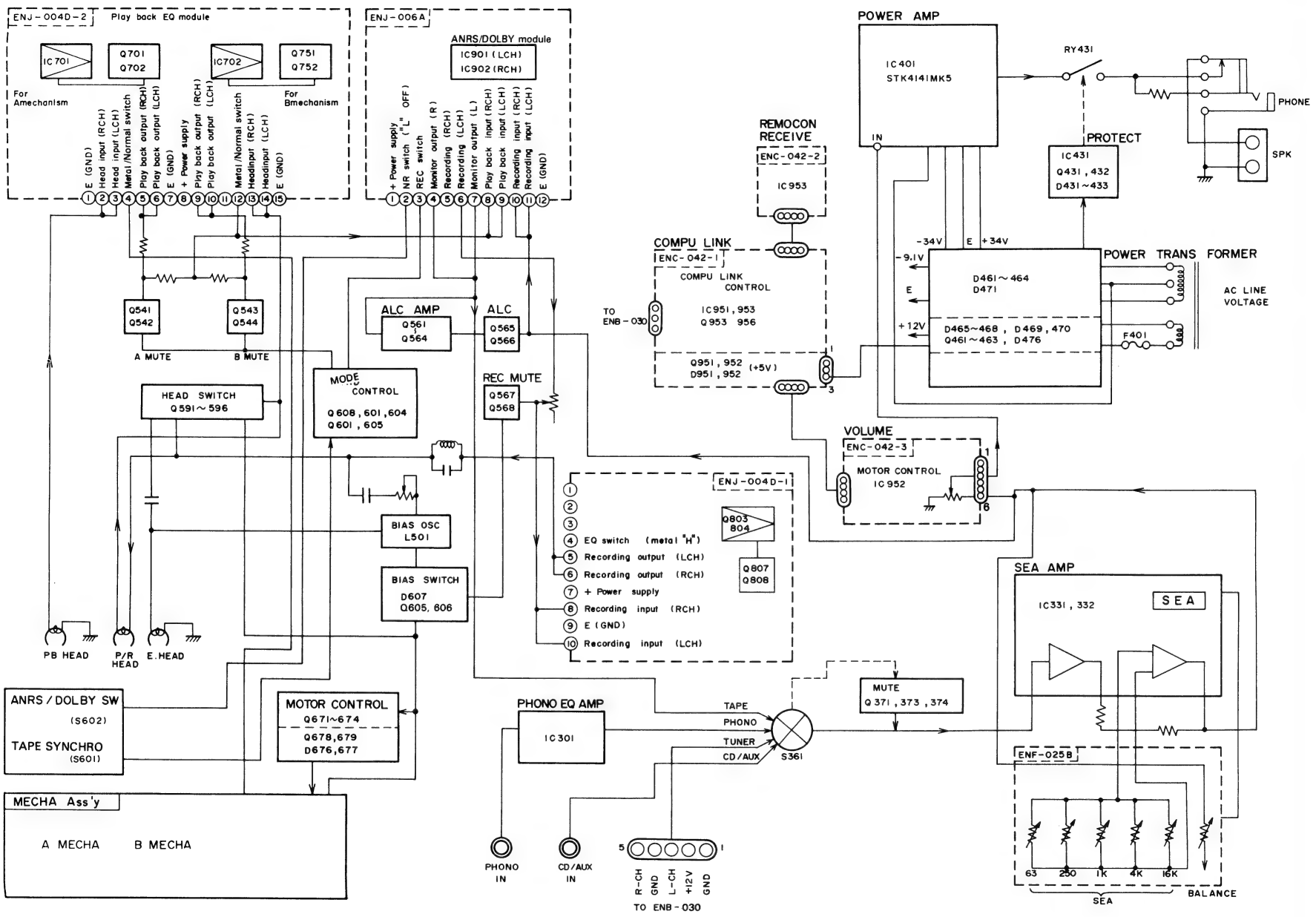
## Tuner Section



FOR ENJ-010-1



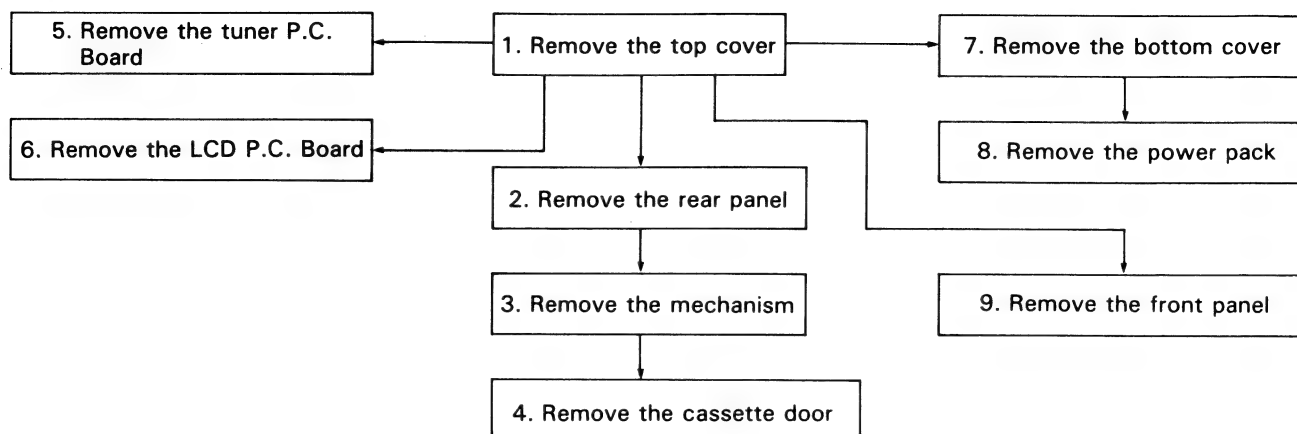
# Cassette & Audio Amplifier Section





# Removal Procedures

This machine was assembled using a specific sequence, so follow the flow chart shown below when removing parts.

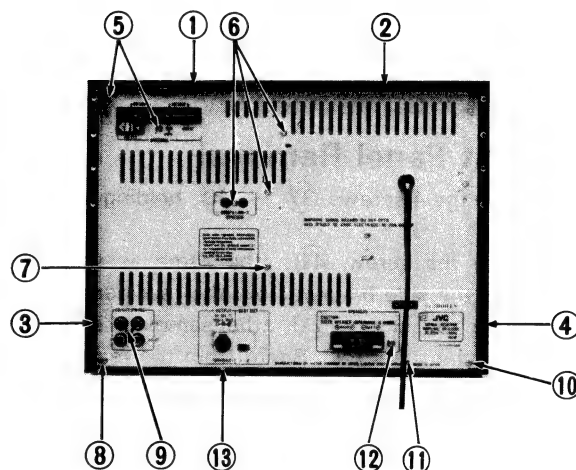


## 1. Top Cover Removal

- (1) Remove the 2 screws (4 in total) from each of the side panels.
- (2) Remove the 4 screws ① ~ ④ from the rear panel and lift up the back of the top cover.

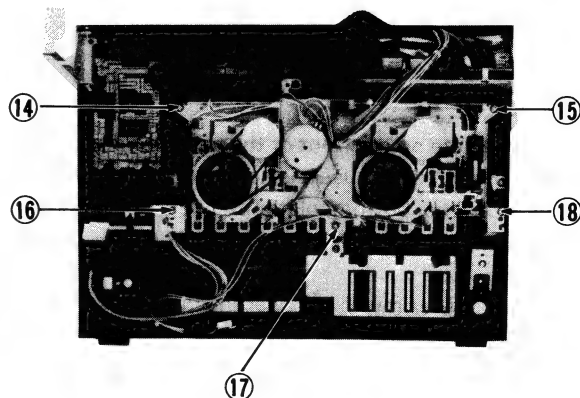
## 2. Rear Panel Removal

- (1) Remove the 8 screws ⑤ ~ ⑫ holding the rear panel.
- (2) Remove the screw ⑬ (the same as screw ③⑩) holding the bottom cover.
- (3) Remove the rear panel. The appearance will be as shown in Fig. 2.



## 3. Mechanism Removal

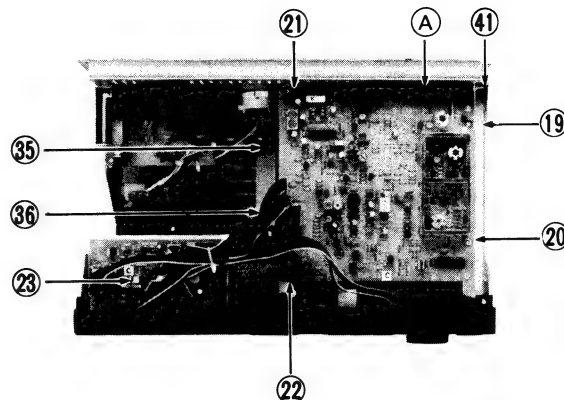
- (1) Remove the 2 special double-threaded screws ⑭, ⑮ holding the top part of the mechanism.
- (2) Remove the 3 screws ⑯ ~ ⑱ holding the lower part of the mechanism (⑯, ⑰ are tapping screws; ⑱ is a double-threaded screw).
- (3) Open the cassette door and remove the mechanism.
- (4) Disconnect the 3 connectors from the cassette mechanism.





## 5. Tuner P.C. Board Removal

- (1) Remove the 2 screws (19) , (20) holding the tuner P.C. Board.
- (2) Removing the screw (21) (the same as screw (6) ) from the rear panel.
- (3) Remove the plastic rivet (22) holding the tuner P.C. Board.
- (4) Removing the screw (A) (the same as screw (9) ) from the rear panel.

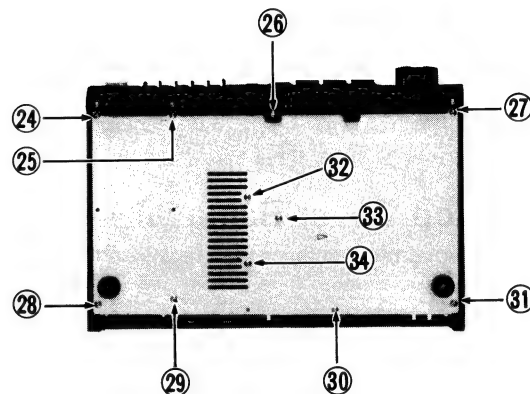


## 6. LCD P.C. Board Removal

- (1) Remove the screw (23) from the parts side of the LCD P.C. Board.

## 7. Bottom Cover Removal

- (1) Remove the 11 screws (24) ~ (34) holding the bottom cover.

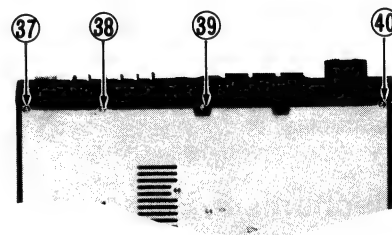


## 8. Power Pack Removal

- (1) Remove the 2 screws (35) , (36) holding the heat sink bracket.
- (2) Unsolder the Power Pack connections.

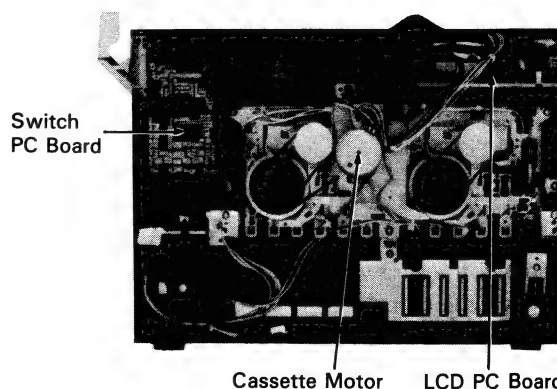
## 9. Front Panel Removal

- (1) Remove the 4 screws (37) ~ (40) holding the bottom panel.
- (2) Remove the screw (41) (the same as screw (5) ) holding the side bracket from the rear panel.
- (3) Remove the screw (21) (the same as screw (6) ) holding the tuner P.C. Board from the rear panel.
- (4) Remove the screw (A) (the same as screw (9) ) holding the antenna terminal from the rear panel.
- (5) Pull off the volume knob and remove the nut.
- (6) Disengage the tab of the SEA P.C. Board.
- (7) Pull out all of the wires protruding from the front panel (3 connectors, 1 bracket wire).
- (8) Disengage the 2 tabs of the SW P.C. Board.
- (9) Remove the power switch rod and remove the front panel by pulling forward.



## 10. Others

- The lid plate on the front of the cassette door can easily be removed because it is held with double-sided tape.
- Remove the bottom plate to check or remove the module P.C. Board standing erect on the audio P.C. Board.
- Adjust the azimuth by inserting a small screwdriver through the gap at the bottom of the cassette door.





# Maintenance

## (1) Cleaning

### 1. Record and play heads

When the heads are used for a long period of time, magnetic powder and dust accumulates on the tape-contact surface of the heads. This causes imperfect erasing or high frequency drop-off. Clean the heads with a soft cloth soaked with alcohol.

### 2. Pinch roller and capstan

When the surfaces where the pinch roller and capstan come into contact with the tape become dirty, the tape speed becomes irregular and this causes wow and flutter. Clean the tape-contact surfaces of pinch roller and capstan with a soft cloth soaked with alcohol in the same way as cleaning the heads.

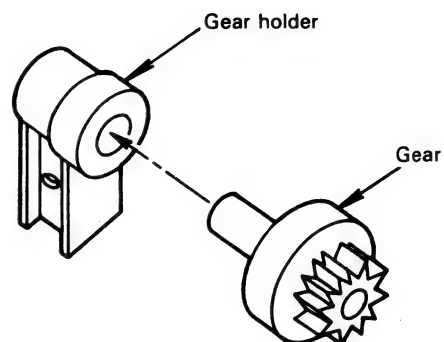
\* Do not wipe them with silicone grease nor oil and do not use a strong solvent such as hexane or carbon tetrachloride.

### 3. External panels

When the external sections such as panels become dirty, clean them with a soft cloth soaked with a neutral cleaning solution or polishing cloth. Do not use a strong solvent such as benzene or thinner.

• Do not use alcohol to clean transparent sections as cracks may occur.

## (2) Gear Damping Unit



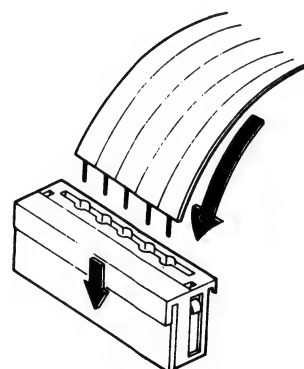
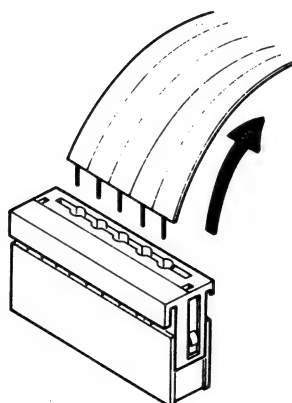
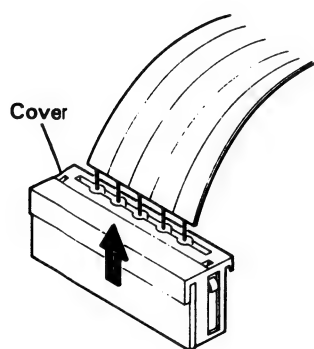
Apply a small amount of grease (G-333) on the unit and rotate the gear slowly to insert into the gear holder.

# Use of New-type Connector

1. Slide the cover upward.

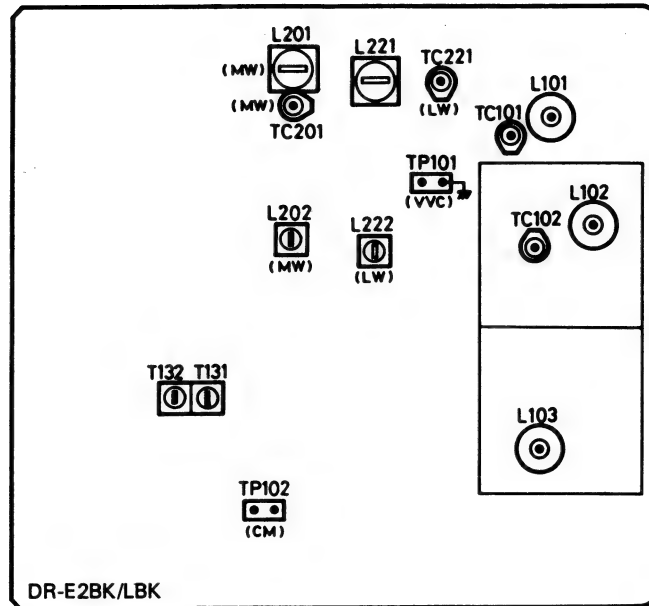
2. Extract the wires.

3. Insert the wires after pushing in the cover.





# FM/MW/LW Tuner Alignment Procedures



## (1) Front-end Section

### FM oscillator coil : L103

1. Set the frequency display to "108.0 MHz" and the FM MODE switch to "MONO" position.
2. Confirm that the noise occurs in the condition of no signal input.
3. Adjust L103 so that the voltage of test point "TP101" becomes  $8.3\text{ V} \pm 0.2\text{ V}$ .
4. Set the frequency display to "87.5 MHz" and confirm that the output of test point "TP101" is  $1.6\text{ V} \pm 0.5\text{ V}$ .

### FM antenna coil : L101, L102

5. Adjust L101 and L102 to obtain the maximum sensitivity at 89.9 MHz.

### FM antenna trimmer : TC101, TC102

6. Adjust TC101 and TC102 to obtain the maximum sensitivity at 105.9 MHz.
7. Repeat the above adjustment of L101, L102, TC101 and TC102.

**Note:** After adjustment, confirm that the Band Cover is in the following range (for West Germany only).

Lower edge: 87.5 MHz (+0 Hz, -300 kHz)  
Higher edge: 108.0 MHz (+500 kHz, -0 Hz)

## (2) IF Detection

### FM detector coil : T131, T132

1. Connect a center-meter or a digital voltmeter to test point "TP102", and receive to 100.1 MHz signal in the condition of SSG ATT 70 dB.
2. Adjust T131 so that the center-meter indicates "0" or the digital voltmeter reads 0 mV.
3. At the same time, adjust T132 so that the distortion is minimized.

## (3) MW Section

**Note:** ( ) ; 9 kHz step, [ ] ; 10 kHz step

### MW oscillator coil : L202

1. Set the frequency display to (522 kHz) [530 kHz] and confirm that the output at test point "TP101" is  $(1.1\text{ V} \pm 0.3\text{ V})$  [1.1 V  $\pm 0.3\text{ V}$ ].
2. Set the frequency display to (1629 kHz or 1611 kHz) [1630 kHz or 1710 kHz] and confirm that the output at test point "TP101" is  $(7.5\text{ V} \pm 0.8\text{ V}$  or  $7.4\text{ V} \pm 0.8\text{ V})$  [7.5 V  $\pm 0.8\text{ V}$  or  $8.2\text{ V} \pm 0.8\text{ V}$ ].
3. If its output is over 9 V at [170 kHz], adjust L202 to obtain [9.0 V].

### MW antenna coil : L201

4. Connect a loop antenna to "AM LOOP" terminal on the rear panel.
5. Adjust L201 to obtain the best receiving sensitivity on (603 kHz) [600 kHz].

### MW antenna trimmer : TC201

6. Adjust TC201 to obtain the best receiving sensitivity on (1404 kHz) [1400 kHz].

## (4) LW Section

### LW oscillator coil : L222

1. Set the frequency display to 144 kHz.
2. Adjust L222 to obtain 1.0 V at test point "TP101".
3. Set the frequency display to (353 kHz) or [290 kHz] and confirm that output at the test point "TP101" is  $(7.2\text{ V} \pm 1.2\text{ V})$  or  $[5.2\text{ V} \pm 0.3\text{ V}]$ .

### LW antenna coil : L221

4. Connect a loop antenna to "AM LOOP" terminal on the rear panel.
5. Adjust L221 to obtain the best receiving sensitivity on 164 kHz.

### LW antenna trimmer : TC221

6. Adjust TC221 to obtain the best receiving sensitivity on (353 kHz) or [290 kHz].



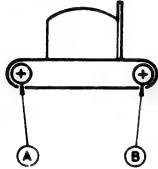
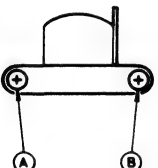
# Cassette Deck Adjustment Procedures

## (1) Measuring Instruments Required for Adjustment

1. Audio frequency signal generator (0 dBs output at the 600  $\Omega$  output terminal from 50 Hz to 20 kHz)
2. Attenuator (600  $\Omega$  impedance)
3. Electronic voltmeter
4. Standard tapes  
VTT-703L (head azimuth adjustment)  
VTT-712 (tape speed, wow & flutter measurement)  
VTT-738 (playback frequency adjustment)  
VTT-724 (reference level)
5. Recording standard tapes  
TS-5 (SF), TS-7 (metal) or equivalent, (Use JVC standard tapes.)
6. 600  $\Omega$  resistors (for attenuator matching)
7. Distortion meter (band-pass filter)
8. Torque gauge (cassette) CTG-N } For mechanical adjustments
9. C-120 tape (to check tape travel)

## (2) Mechanical Adjustments and Repairs

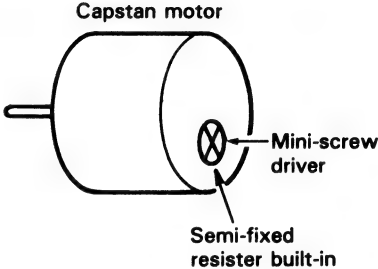
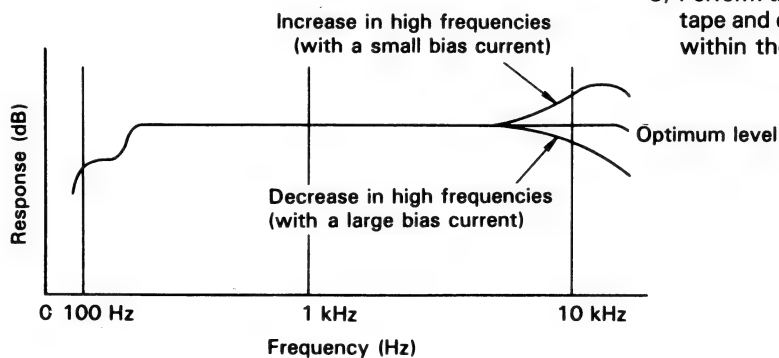
(Adjust and inspect the mechanical system before making electrical circuit adjustments)

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Recording/playback head azimuth adjustment	1. Connect the SPK OUT terminal output to an electronic voltmeter. 2. Play VTT-703L.			1. Replace the head when it does not deliver the required performance due to wear, disconnection, excessive magnetization, etc. After replacement, adjust the head azimuth. Also adjust the playback level, recording bias current, recording level, etc.
A mechanism 	3. Put the deck in the PLAY ► mode and adjust screw (A) until the output of the electronic voltmeter is maximum.	Screw (A)	Maximum	2. Replace the head when the left and right output level differ by more 3~4 dB to avoid claims.
B mechanism 	4. Put the deck in the PLAY ► mode and adjust screw (A) until the output of the electronic voltmeter is maximum. 5. After making the adjustment, apply screw lock to prevent screws (A), (B) coming loose.	Screw (A)	Maximum	
Playback torque	Use cassette CTG-N to measure the playback torque.		35~75 g-cm	When the standard torque cannot be obtained, clean or replace the take-up disk assembly.
Fast forward torque	Measure the fast forward torque, using the above method.		60 g-cm or more	When the standard torque cannot be obtained: 1. Clean the outer circumference of the capstan belt, motor pulley, flywheel, etc. 2. Replace the belt, idler, etc.
Rewind torque	Measure the rewind torque, using the above method.		60 g-cm or more	When the standard torque cannot be obtained, clean the outer circumference of the capstan belt, motor pulley, flywheel, supply reel disk, etc.
Wow & flutter	Playback VTT-712 with a wow & flutter meter connected to the SPK OUT terminal to make sure the wow & flutter is 0.26% (WRMS) or less.			When fluctuation is 0.1% or more even though within the rated value, repair to avoid a possible second claim.

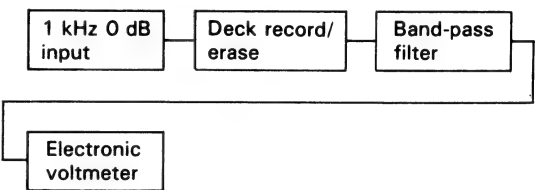


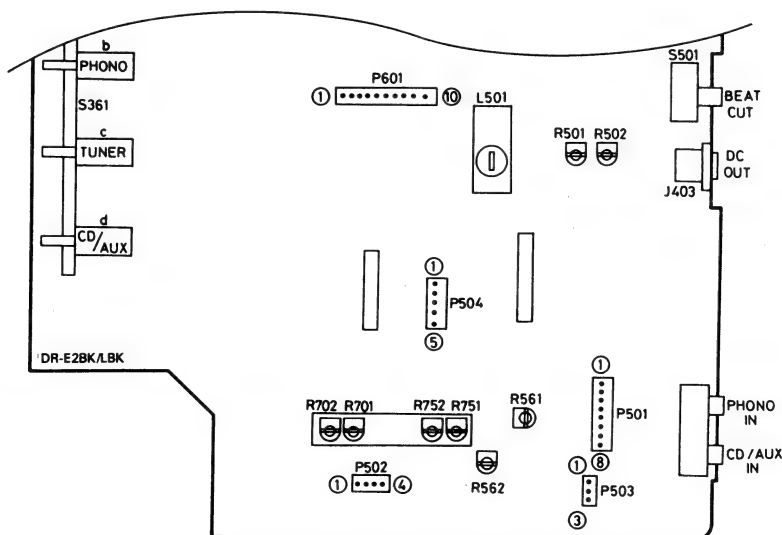
### (3) Electrical Circuit Adjustments

- \* Make the following adjustments after adjusting the head azimuth.
- \* In principle, the adjustments should be made in the following sequence.
- \* Set the NR switch to OFF and the BEAT CUT switch to "1".
- \* Adjustments marked with an asterisk (\*) should always be made after the head is replaced.

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Motor speed	1. Playback VTT-712 with the deck set to TAPE and an electronic counter connected to the SPK OUT terminal.	Semi-fixed resistance of the capstan motor		Connect a wow & flutter meter with a built-in electronic counter to the INPUT.  
	2. Speed Adjustment (1) For the A mechanism: playback the A mechanism and adjust the semi-fixed resistor to 3,000 Hz.	Capstan motor	3,000 Hz	
	(2) For the B mechanism: playback the B mechanism.			
* 1	Playback level Playback VTT-724 (1 kHz) and adjust so that the output between ⑤, ④ (L) of P504 and ⑤ and ① (R) of P504 is -3 dB.	A R701 (L) (R)702 B R751 (L) (R)752	-3 dBs	The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 kΩ or more.
* 2	Recording bias frequency Connect a frequency counter between ① and ② of P501 and playback a metal tape.	L501	105 kHz ±5 kHz	
* 3	Recording frequency response Record 100 Hz/1 kHz/10 kHz with the NR switch off and -30 dBs input from AUX. While playing back these recorded signals, adjust the variation of the 100 Hz and 10 kHz outputs from the 1 kHz output to the standard value using R501 and R502. (Basically, adjust so that the 1 kHz and 10 kHz outputs are flat.)	R501 (L) R502 (R)	0±3 dB for 100 Hz and 10 kHz with 1 kHz as the standard.	1) The recording and playback frequencies of a cassette deck are adjusted by adjusting the bias. This is because the frequency response depends more on the bias current than with an open-reel deck. 2) When the bias current is not correctly adjusted, recording and playback become as shown in the diagram below. 3) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.
 <p><b>Note:</b> After completing the recording level adjustment in item (4), check the recording and playback frequencies with the NR switch on. Fine adjust again if the value is 0±4 dB or more at 1 kHz and 10 kHz.</p>				



	Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
* 4	Recording Level	1) Add a 1 kHz (− 8 dB) input to the AUX terminal and record on the left and right channels using normal tape. 2) When playing this back, adjust the recording signal current so that output between ⑤ − ④ (L) of P504 and ⑤ − ① (R) of P504 is − 3 dB.	R561 (L) R562 (R)	− 3 dBs	Adjust with normal tape and make sure that the level difference is 1.5 dB or less with metal tape and that the left/right level difference is 1.0 dB or less.
* 5	Recording/playback distortion check	1) Record a 1 kHz (− 8 dBs) AUX input signal. 2) Play this back and check the output with a distortion meter to make sure it is the rated value.		2% or less with normal tape or metal tape.	Perform after the bias current and recording level adjustments.
6	Recording/playback S/N ratio check	1) Record 1 kHz (− 8 dB) AUX output signal. While recording, remove the input and record without a signal. 2) Play this back and use an electronic voltmeter to compare the 0 dB recording output and the output of the recording without a signal to make sure this is the rated value.		42 dB or more with normal tape or metal tape	
7	Erase ratio check	1) Record a 1 kHz (0 dB) AUX input signal. 2) Rewind and erase part of the recorded section. 3) Compare the outputs of the recorded and erased sections using an electronic voltmeter.		65 dB or more	Connect a 1 kHz band-pass filter between the deck and electronic voltmeter when making the adjustment.  
8	Auto-stop check	When playing back and recording, make sure to operate AUTO STOP.			





# Troubleshooting the Cassette Amplifier P.C. Board

There are three types of small P.C. Boards (cassette modules) installed vertically on the cassette amplifier P.C. Board (ENJ-010-1).

1. Recording amplifier P.C. Board (ENJ-004D-1)
2. Playback amplifier P.C. Board (ENJ-004D-2)
3. ANRS P.C. Board (ENJ-006B)

## (1) Before replacing the parts in the cassette module, check the various Terminals

### 1. Recording amplifier P.C. Board (ENJ-004D-1)

Problem	Check Items	Check Point
Cannot record in any mode	Is power being supplied?	⑦⑨
	Is recording bias applied?	⑤⑥
	Is the recording signal being supplied?	⑧⑩
Semi-fixed resistance of the capstan motor	Is the playback frequency correct?	→ Playback module
	Is the recording equalize switch input correct?	④

### 2. Playback amplifier P.C. Board (ENJ-004D-2)

Problem	Check Items	Check Point
Cannot playback	Is power being supplied?	⑦⑧
	Is the head wire disconnected?	②③⑬⑭
	Is there output?	⑤⑥⑨⑩
When playback frequency response is faulty	Is the playback equalize switch input correct?	④⑫

### 3. ANRS P.C. Board (ENJ-006B)

Problem	Check Items	Check Point
Cannot playback	Is power being supplied?	①⑫
	Is the deck in the recording mode?	③
	Is there input?	⑧⑨
	Is there output?	④⑦
NR cannot be turned on and off	Is NR switch input correct?	②
Cannot record	Is the deck in the playback mode?	③
	Is there input?	⑩
	Is there output?	⑤⑥
Dubbing not possible	Is the deck in the recording mode?	③
	Is there input?	⑧⑨
	Is there output?	⑤⑥

## (2) Determine which module is faulty using the results of the above checks. The applications for which semiconductors used on the P.C. Boards are used are shown below.

### 1. Recording amplifier P.C. Board

Application	L	R	Remarks
Signal amp	Q803	Q804	2SC1740LN(R,S)
Metal EQ switch	Q807	Q808	2SC1740(R,S)

### 2. Playback amplifier P.C. Board

Application	L	R	Remarks
Signal amp B mechanism/A mechanism	IC701/702	IC701/702	M51522L
B mechanism metal EQ switch	Q701	Q702	2SK301(P,Q)

Application	L	R	Remarks
A mechanism metal EQ switch	Q751	Q752	2SK301 (P,Q)

### 3. ANRS P.C. Board

Application	L	R	Remarks
Signal switch amp	IC901	IC902	AN7363N



### (3) The input/output and control conditions for the P.C. Boards are as follows.

#### 1. Recording amplifier P.C. Board (ENJ-004D-1)

Terminal No.	Terminal Function	Remarks
4	Metal EQ	Electric switch input 5 V
5	L CH signal output	
6	R CH signal output	
7	+B	12 V
8	R CH signal input	
9	GND	
10	L CH signal input	

#### Gain

Control		④ -Open	④ 5V
in ⑩	100 Hz	- 11.6 dB±1.5 dB	- 7.9 dB±1.5 dB
	1 kHz	- 12.3 dB±1.5 dB	- 8.4 dB±1.5 dB
	10 kHz	- 3.2 dB±1.5 dB	- 2.1 dB±1.5 dB
in ⑧	100 Hz	- 11.6 dB±1.5 dB	- 7.9 dB±1.5 dB
	1 kHz	- 12.3 dB±1.5 dB	- 8.4 dB±1.5 dB
	10 kHz	- 3.2 dB±1.5 dB	- 2.1 dB±1.5 dB

- Note:** (1) Insert 10 kohms in series with the signal source for the input terminal.  
 (2) With the output voltage at - 20 dBs as the standard value and the load resistance of the output terminal at 1 kohms.

#### 2. Playback amplifier P.C. Board (ENJ-004D-2)

Terminal No.	Terminal Function	Remarks
1	GND	For A mechanism input
2	R CH head input for A mechanism	
3	L CH head input for A mechanism	
4	Normal EQ for A mechanism	Electric switch input (GND short)
5	R CH EQ output for A mechanism	
6	L CH EQ output for A mechanism	
7	GND	For power supply
8	+B	12 V
9	R CH EQ output for B mechanism	
10	L CH EQ output for B mechanism	
12	Normal EQ for B mechanism	Electric switch input (GND short)
13	R CH head input for B mechanism	
14	L CH head input for B mechanism	
15	GND	For B mechanism input

#### Gain

Control		⑫ -Open	⑫ -GND
in ⑬	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB
in ⑭	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB

Control		④ -Open	④ -GND
in ②	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB
in ③	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB

- Notes:** (1) With the output voltage at - 20 dBs as the standard and the load resistance for the output terminal at 10 kohms.  
 (2) The adjustment control is preset at the center.  
 \* The actual range of the adjustment control is approximately 11 dB.



3. ANRS P.C. Board (ENJ-006A)

Terminal No.	Terminal Function	Remarks
1	+ B	12 V
2	NR (OFF)	Electric switch input (GND short)
3	REC/PB (REC)	" ( " )
4	R CH output (playback)	REC/PB monitor
5	R CH output (recording)	REC monitor
6	L CH output (recording)	"
7	L CH output (playback)	REC/PB monitor
8	R CH playback input	
9	L CH playback input	
10	R CH recording input	
11	L CH recording input	
12	GND	

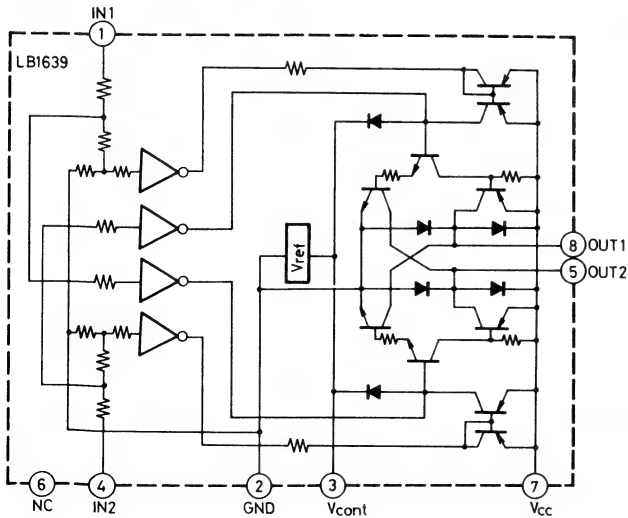
Gain

PB mode	Input/output	in ⑨ → out ⑦	in ⑨ → Out ⑦	in ⑧ → Out ④	in ⑧ → Out ④
	Control	② -GND, ③ -Open	②, ③ -Open	② -GND, ③ -Open	②, ③ -Open
	100 Hz gain	33 dB±1.5 dB	Gain fluctuation 0±1.5 dB	33 dB±1.5 dB	Gain fluctuation 0±1.5 dB
	1 kHz gain	33 dB±1.5 dB	" -3.0±1.5 dB	33 dB±1.5 dB	" -3.0±1.5 dB
	10 kHz gain	33 dB±1.5 dB	" -3.0±1.5 dB	33 dB±1.5 dB	" -3.0±1.5 dB
REC mode	Input/output	in ⑪ → Out ⑥	in ⑪ → Out ⑥	in ⑩ → Out ⑤	in ⑩ → Out ⑤
	Control	②, ③ -GND	② -Open, ③ -GND	②, ③ -GND	② -Open, ③ -GND
	100 Hz gain	33 dB±1.5 dB	Gain fluctuation 0±1.5 dB	33 dB±1.5 dB	Gain fluctuation 0±1.5 dB
	1 kHz gain	33 dB±1.5 dB	" -3.0±1.5 dB	33 dB±1.5 dB	" -3.0±1.5 dB
	10 kHz gain	33 dB±1.5 dB	" -3.0±1.5 dB	33 dB±1.5 dB	" -3.0±1.5 dB

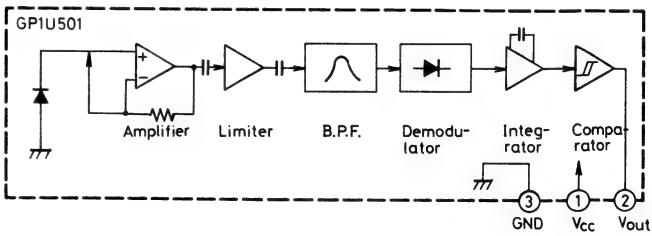
Note: The standard output voltage 120 dB and the load resistance for the output terminal is 22 kohms.

Internal Block Diagrams of Major ICs

IC952: LB1639

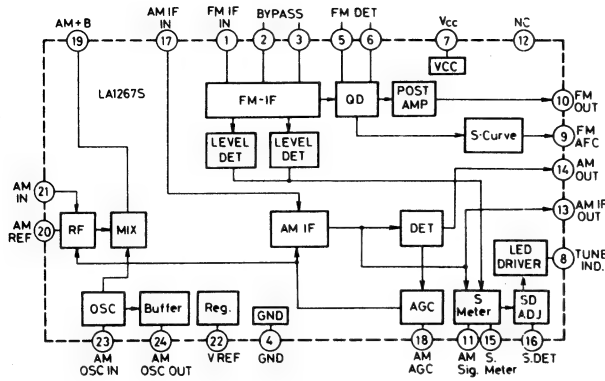


IC953: GP1U501

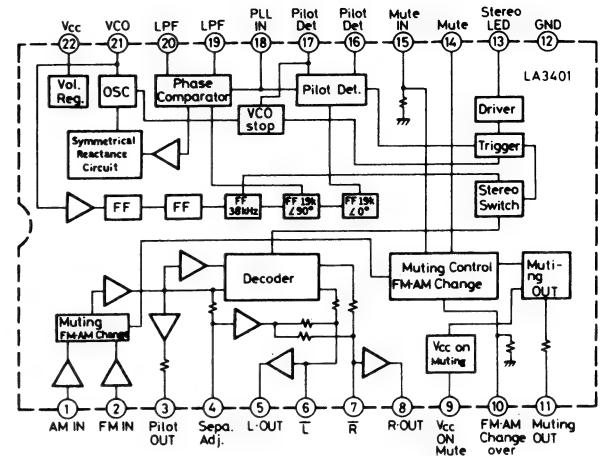




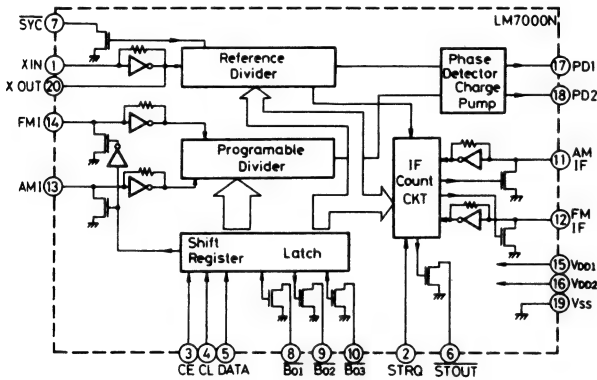
### IC131 : LA1267S



### IC171 : LA3401



### IC241 : LM7000N

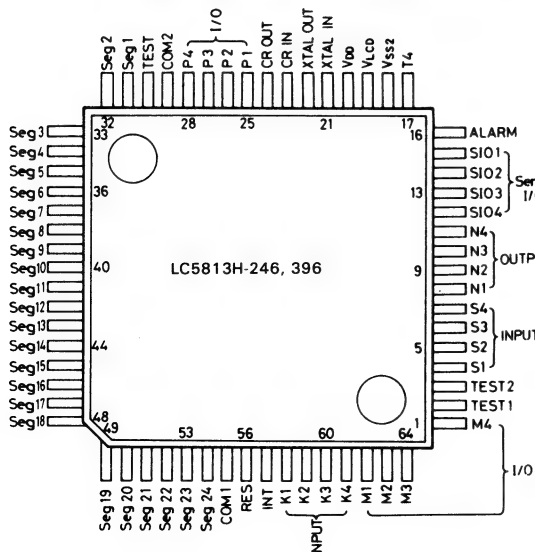


### IC241 : LM7000N

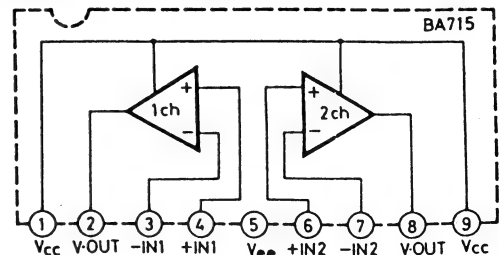
Terminal Name	Function
SYC	Clock(400kHz) for controller
XIN,XOUT	Crystal oscillator(3.6MHz) Included the feedback resistor.
FMI,AMI	Local oscillator signal input
CE,CL,DATA	Data input
B01,B02,B03	Band data output
STRQ	Request of IF counter input
STOUT	Auto-search stop signal output
Vdd1,Vdd2,Vss	Power supply(Vdd2:for back-up)
AMIF,FMIF	IF signal input
PD1,PD2	Charge pump output

### IC261 : LC5813H-246

### IC261 : LC5813H-396 (for Italy only)

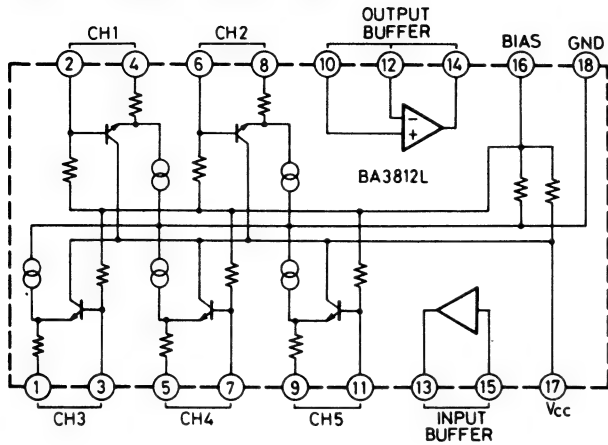


### IC301 : BA715DX

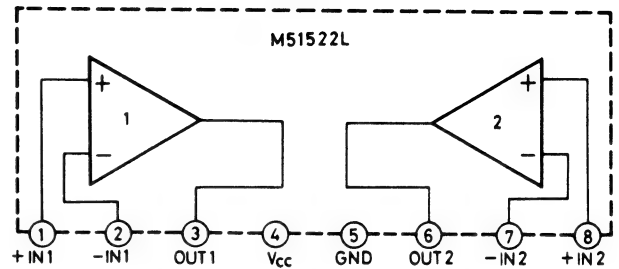




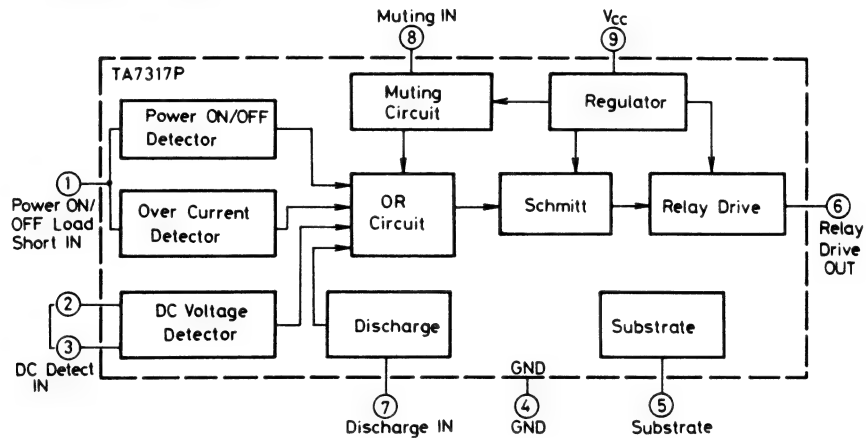
### IC331, IC332 : BA3812L



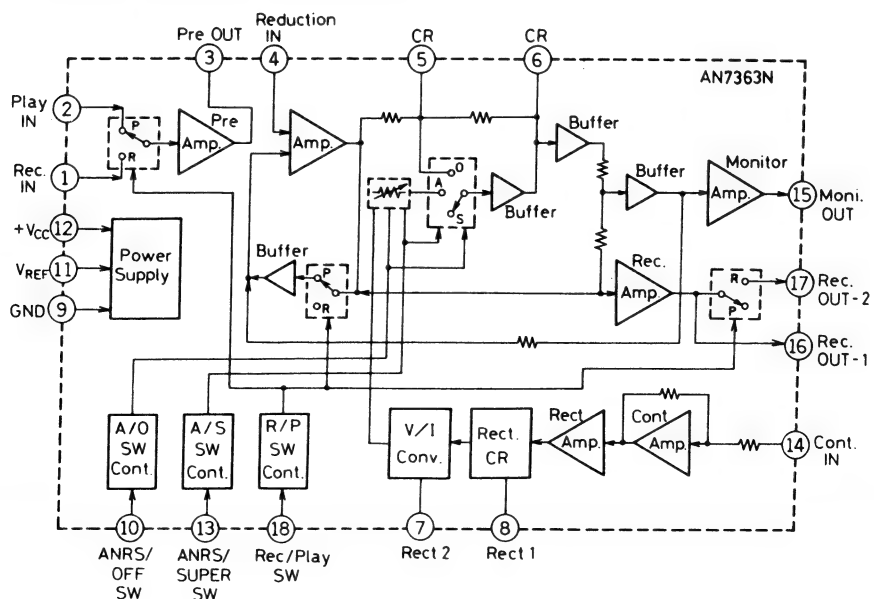
### IC701, IC702 : M51522L



### IC431 : TA7317P



### IC901, IC902 : AN7363N





# Terminal Functions of Micro-processor

IC261 : LC5813H-246

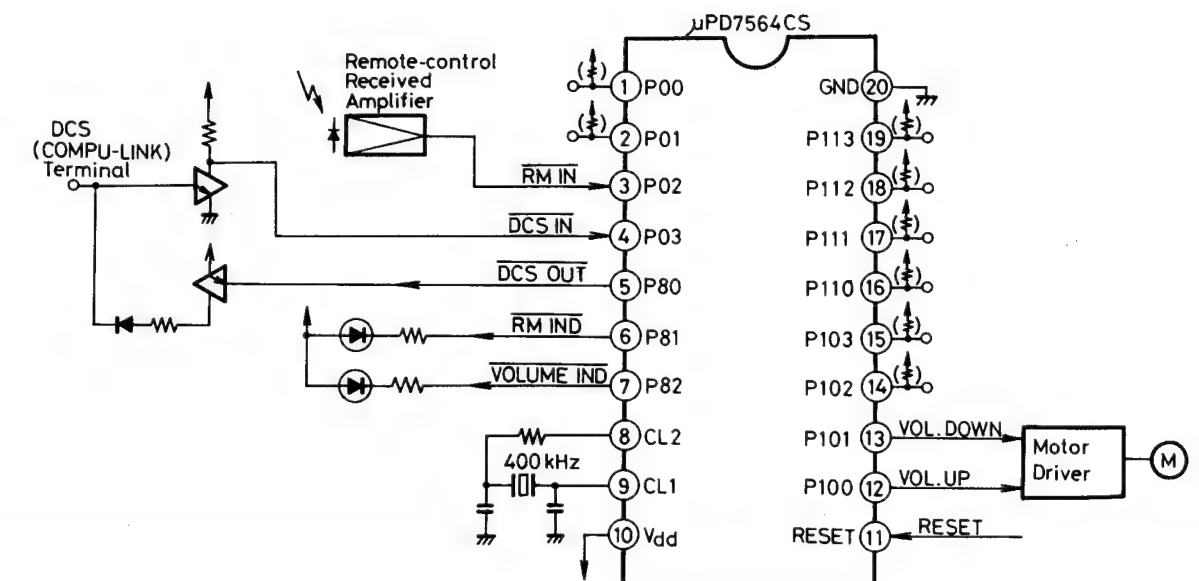
IC261 : LC5813H-396 (for Italy only)

Pin No.	Symbol	Name	I/O	Terminal Function
1	M4	M4	0	Key output
2	TEST 1	TEST 1	---	Not use.
3	TEST 2	TEST 2	---	Not use.
4	S1	S1	I	Port for key input; Compose the key matrix with M1~M4.
5	S2	S2	I	Port for key input; Compose the key matrix with M1~M4.
6	S3	S3	I	Port for key input; Compose the key matrix with M1~M4.
7	S4	INH	I	Back-up detection
8	N1	MUTE	0	When Muting ON, output is "H".
9	N2	MONO	0	When MONO, output is "H".
10	N3	CATV	0	Not use.
11	N4	POWER	0	When Power ON, output is "L".
12	SI04	STRQ	0	Connect the STRQ of LM7000N.
13	SI03	CLK	0	Connect the CLK of LM7000N.
14	SI02	DATA	0	Connect the DATA of LM7000N.
15	SI01	CE	0	Connect the CE of LM7000N.
16	ALARM	DCS OUT	0	Not use.
17	T4	T4	---	Not use.
18	Vss2	Vss2	---	GND
19	VLCD	VLCD	---	Voltage reference of LCD. (Light at 0V)
20	VDD	VDD	---	+5V
21	X'tal IN	X'tal IN	---	Not use.
22	X'tal OUT	X'tal OUT	---	Not use.
23	CR IN	CR IN	---	Connect the ceramic oscillator.
24	CR OUT	CR OUT	---	Connect the ceramic oscillator.
25	P1	DCS IN	I	"H" Level
26	P2	STOP IN	I	Input of "AUTO STOP"
27	P3	SIGNAL IN	I	Input of "TUNED" display
28	P4	STEREO IN	I	Input of "STEREO" display
29	COM2	COM2	0	Common 2 of LCD
30	TEST	TEST	---	Not use.
31~54	SEG1~24	SEG1~24	0	1~24 segments of LCD
55	COM1	COM1	0	Common 1 of LCD
56	RES	RES	I	Input of RESET
57	INT	INT	I	Input of Interrupt
58	K1	K1	I	Key input; Compose the key matrix with M1~M4.
59	K2	K2	I	Key input; Compose the key matrix with M1~M4.
60	K3	K3	I	Key input; Compose the key matrix with M1~M4.
61	K4	K4	I	Key input; Compose the key matrix with M1~M4.
62	M1	M1	0	Key output
63	M2	M2	0	Key output
64	M3	M3	0	Key output

IC951 :  $\mu$ PD7564CS-071

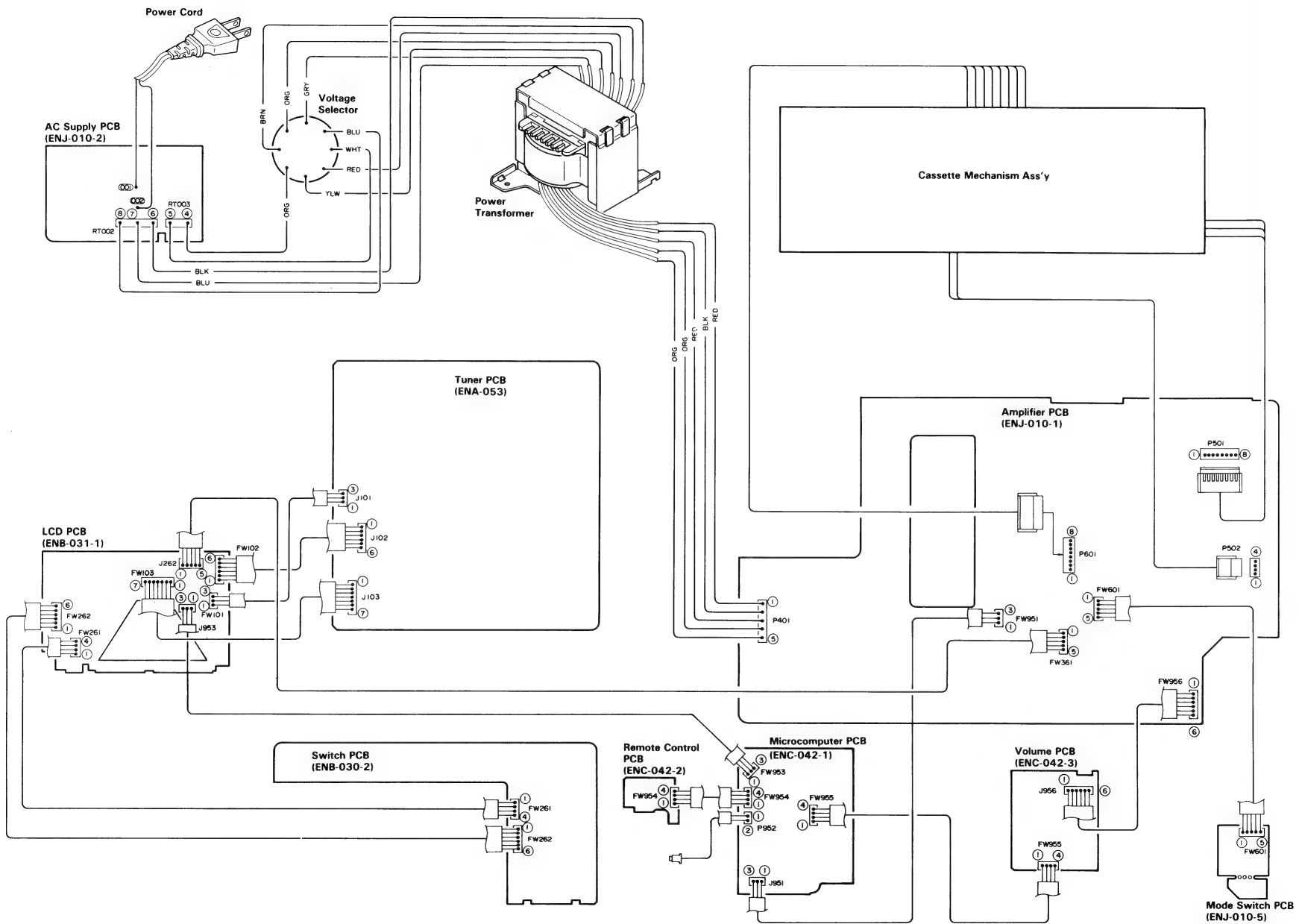
Pin No.	Symbol	Name	I/O	Terminal Function
1	P00	P00	-	Not used.
2	P01	P01	-	Not used.
3	P02	RM IN	I	Remote-control input port
4	P03	DCS IN	I	DCS (COMPU-LINK) input port
5	P80	DCS OUT	O	DCS (COMPU-LINK) output port
6	P81	RM IND	O	Remote-control indicator driver
7	P82	VR IND	O	Volume indicator driver
8	CL2	CL2	-	Connect the ceramic oscillator.
9	CL1	CL1	-	Connect the ceramic oscillator.
10	Vdd	Vdd	-	+5V
11	RESET	RESET	I	Input of Reset
12	P100	VR UP	O	Volume up
13	P101	VR DOWN	O	Volume Down
14	P102	P102	-	Not used.
15	P103	P103	-	Not used.
16	P110	P110	-	Not used.
17	P111	P111	-	Not used.
18	P112	P112	-	Not used.
19	P113	P113	-	Not used.
20	Vss	Vss	-	GND

— Example of Interface: from Remote-control to DCS (COMPU-LINK) —





# Connection Diagram





# PARTS LIST

## Contents

Main Parts Locations .....	2-2
Exploded View and Parts List .....	2-3
Mechanism Ass'y .....	2-7
Printed Circuit Board Ass'y and Parts List .....	2-11
■ ENJ-010 <input type="checkbox"/> Cassette Amplifier and Audio Amplifier P.C. Board Ass'y .....	2-11
■ ENA-053 <input type="checkbox"/> Tuner P.C. Board Ass'y .....	2-16
■ ENF-025 <input checked="" type="checkbox"/> SEA P.C. Board Ass'y .....	2-20
■ ENB-030 <input type="checkbox"/> LCD Display and Operation Switch P.C. Board Ass'y .....	2-21
■ ENJ-006 <input checked="" type="checkbox"/> Noise Reduction P.C. Board Ass'y .....	2-22
■ ENJ-004 <input checked="" type="checkbox"/> Record Amplifier and Playback Amplifier P.C. Board Ass'y .....	2-23
■ ENC-042 <input checked="" type="checkbox"/> Remote-Control P.C. Board Ass'y .....	2-24
Packing Materials and Part Numbers .....	2-26
Accessories List .....	2-27

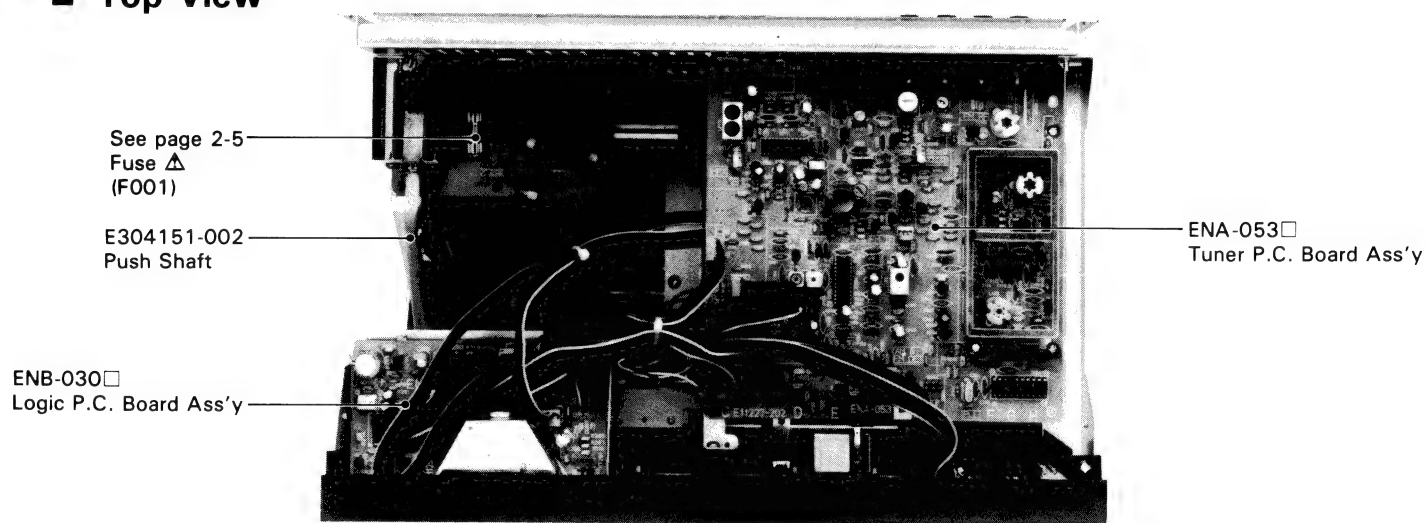


# Main Parts Locations

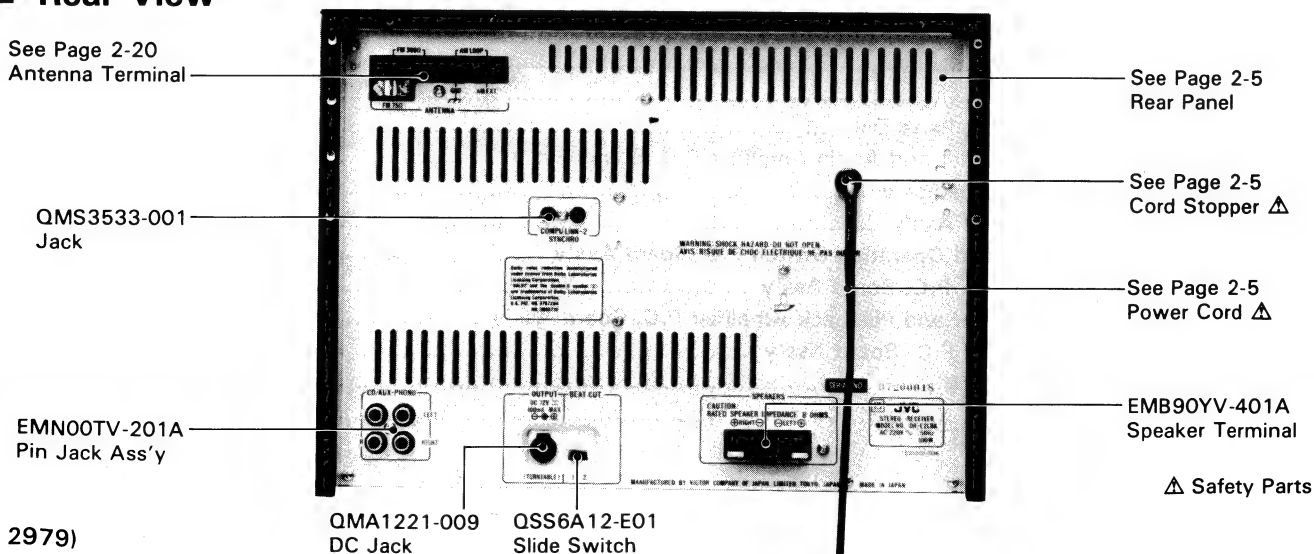
## ■ Front View



## ■ Top View

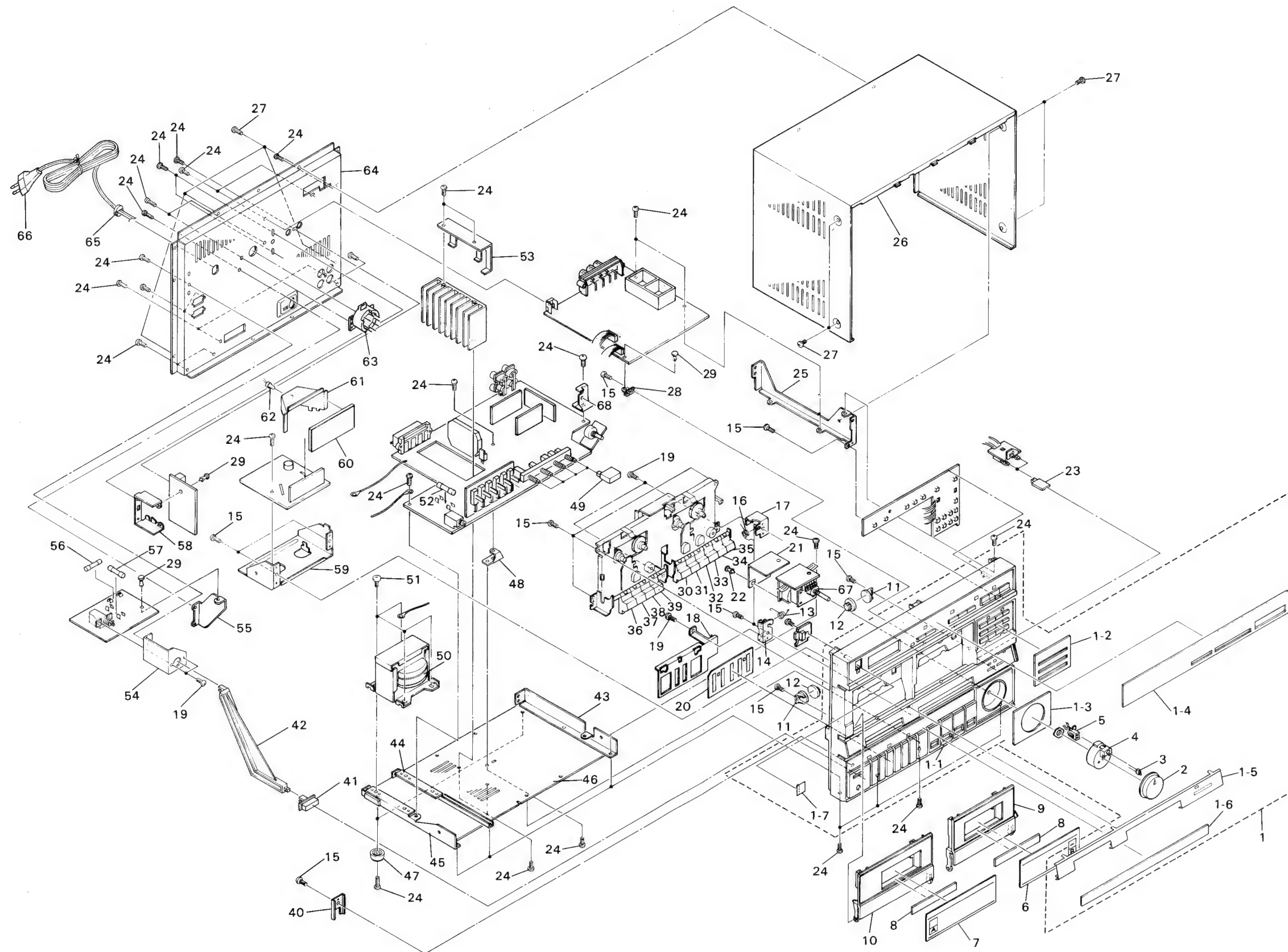


## ■ Rear View





# Exploded View and Parts List





DR-E2BK  
DR-E2LBK

DR-E2BK  
DR-E2LBK

■ Exploded View and parts List

△	Item No.	Part Number	Part Name	Q'ty	Description	Area
	1	EFP-DRE2BKE EFP-DRE2LBKE	Front Panel Ass'y	1		Except E, G, BS, GI
	1-1	E11260-010	Front Panel Ass'y	1		E, G, BS, GI
	1-2	E72885-006	Front Panel	1		
	1-3	E72887-006	Ornament	1		
			Volume Plate	1		
	1-4	E304145-009	Dial Plate	1		U, P, PG, A
		E304145-010	Dial Plate	1		E, G, BS, GI
	1-5	E25302-006	Cassette Plate	1		
	1-6	E304147-005	SEA Plate	1		
	1-7	E72436-007	Screen	1		
	2	E304321-002	Volume Knob	1		
	3	SLT-25VR52F	L.E.D.	1	Red	
	4	E304320-002	Holder	1		
	5	EWS142-003	Socket Wire	1		
	6	E72883-005	Lid Plate(B)	1	Red	
	7	E72881-006	Lid Plate(A)	1	Blue	
	8	E73041-002	Holder Plate	2		
	9	E25304-007	Cassette Holder	1	B Mechanism	
	10	E25306-007	Cassette Holder	1	A Mechanism	
	11	VYH5602-001	Gear Holder	2		
	12	VYH5601-001	Damper Gear	2		
	13	E72896-001	Holder Spring	1		
	14	E72892-001	Holder Bracket	1		
	15	SRSF3010Z	Screw	11		
	16	E72897-002	Holder Spring	1		
	17	E72893-001	Holder Bracket	1		
	18	E304226-002	Shield Plate	1		
	19	SBST3006Z	Screw	5		
	20	E73278-001	Spacer	1		
	21	E304789-001	Shield Cover	1		
	22	E48729-017	Plastic Rivet	1		
	23	E72890-001	Push Button	2		
	24	SBSB3008N	Screw	33		
	25	E304155-001	Side Bracket	1		
	26	E25310-003	Metal Cover	1		
	27	SDBS3008M	Screw	8		
	28	E72926-001	L Bracket	1		
	29	E48729-008	Plastic Rivet	3		
	30	E304172-001	Cassette Button	1	REC	
	31	E304172-002	Cassette Button	1	REW	
	32	E304172-003	Cassette Button	1	FF	
	33	E304172-004	Cassette Button	1	PLAY	
	34	E304172-005	Cassette Button	1	STOP/EJE	
	35	E304172-006	Cassette Button	1	PAUSE	
	36	E304172-007	Cassette Button	1	REW	
	37	E304172-008	Cassette Button	1	FF	
	38	E304172-009	Cassette Button	1	PLAY	
	39	E304172-010	Cassette Button	1	STOP/EJE	
	40	E73188-001	Bracket	1		
	41	E303883-009	Power Button	1		

△	Item No.	Part Number	Part Name	Q'ty	Description	Area
	42	E304151-002	Push Shaft	1		
	43	E304154-001	Right Bracket	1		
	44	E304153-001	Center Bracket	1		
	45	E304152-001	Left Bracket	1		
	46	E25315-001	Bottom Plate	1		
	47	E47227-006	Foot	2		
	48	E68587-007	Z Bracket	1		
	49	E72889-001	Push Button	4		
△	50	ETP1050-13FA	Power Transformer	1		U, P, PG
△		ETP1050-13EA	Power Transformer	1		A, E, G, GI
△		ETP1050-13EABS	Power Transformer	1		BS
△	51	E65389-002	Ass'y Screw	4		Except BS
△	52	QMF51A2-1R6S	Fuse	1		BS
△		QMF51E2-1R6SBS	Fuse	1		
	53	E72894-001	Leaf Spring	1		
	54	E72226-002	Switch Bracket	1		
	55	E72331-002	Stay Bracket	1		
△	56	QMF51A2-1R0S	Fuse	1	FO02	U, P, PG
△	57	QMF51A2-1R6S	Fuse	1	FO01	U, P, PG
△		QMF51A2-1R0S	Fuse	1	FO01	A, E, G, GI
△		QMF51E2-1R0SBS	Fuse	1	FO01	BS
	58	E304756-001	C.B.Bracket	1		
	59	E304156-002	LCD Bracket	1		
	60	E73005-001	Sheet	1		
	61	E303726-001	Lamp Holder	1		
△	62	ELP3104-B100W	Pilot Lamp	1		
	63	QSR0085-007	Voltage Selector	1		U, P, PG
	64	E25308-034	Rear Panel	1	MADE IN JAPAN	U, P, PG
		E25308-035	Rear Panel	1	MADE IN JAPAN	A
		E25308-036	Rear Panel	1	MADE IN JAPAN	E, GI
		E25308-037	Rear Panel	1	MADE IN JAPAN	G
		E25308-038	Rear Panel	1	MADE IN JAPAN	BS
		E25308-041	Rear Panel	1	MADE IN SINGAPORE	E, GI
		E25308-042	Rear Panel	1	MADE IN SINGAPORE	G
		E25308-043	Rear Panel	1	MADE IN SINGAPORE	BS
△	65	QHS3876-162	Cord Stopper	1		Except BS
△		QHS3876-162BS	Cord Stopper	1		BS
△	66	QMP7600-200	Power Cord	1		U, P, PG
△		QMP2560-244	Power Cord	1		A
△		QMP3900-200	Power Cord	1		E, GI
△		QMP3990-200	Power Cord	1		G
△		QMP9017-008BS	Power Cord	1		BS
	67	QVDB91B-E15B	Variable Resistor	1	R360	
	68	E74026-001	Volume Bracket	1		

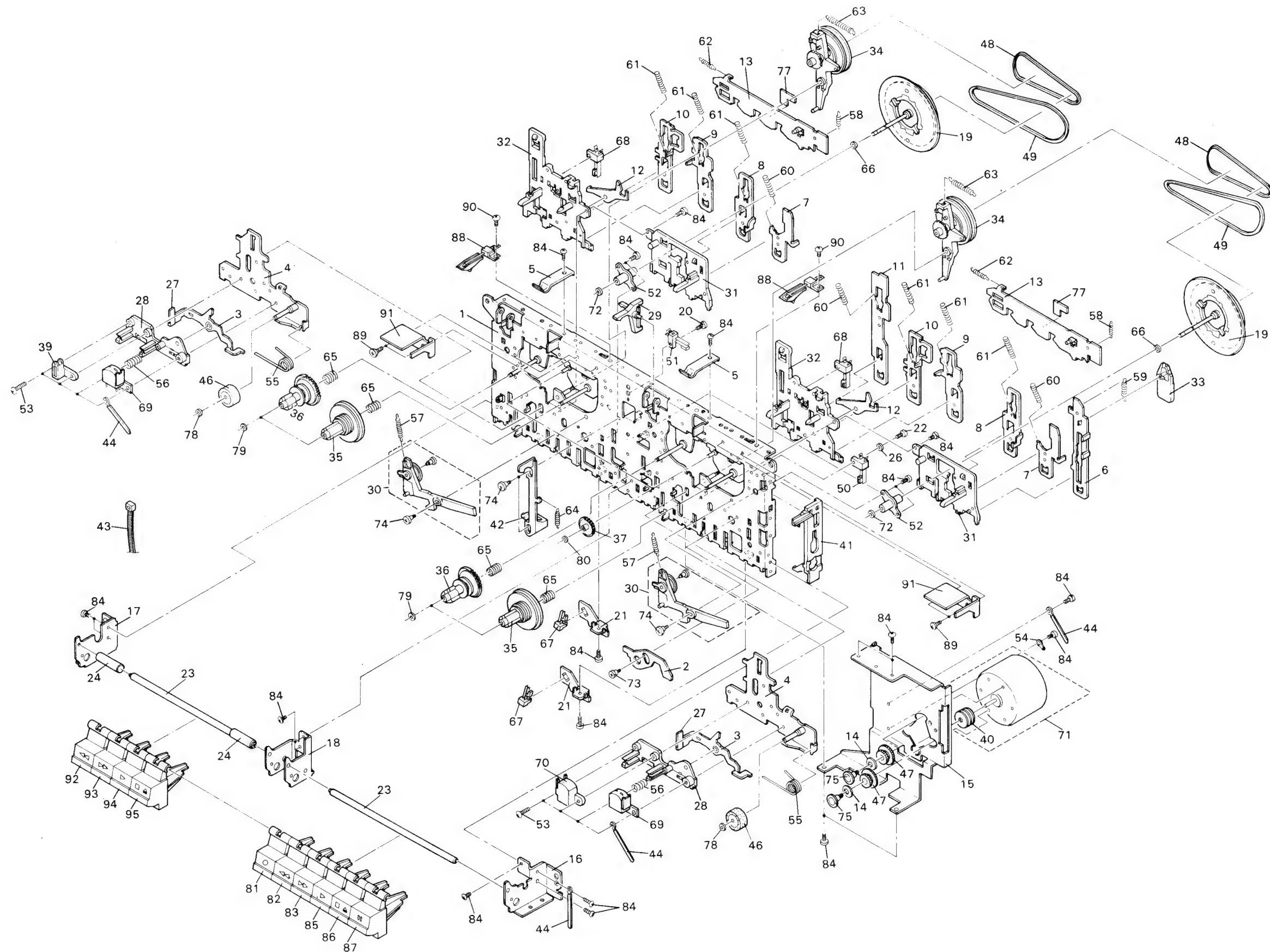
△ Safety Parts

The Marks for Designated Areas			
A	Australia	BS	U.K.
E	Europe	P, PG	U.S. Military Market
G	West Germany	U	Other Countries
GI	Italy		

No mark indicates all areas.



# Mechanism Assembly





## ■ Mechanism Ass'y Parts List

△	Item No.	Part Number	Part Name	Q'ty	Description	Areas
	1	EGSC1538	Chassis (W) Ass'y	1		
	2	EGSD1522	Pause Arm	1		
	3	EGSD1514	AS Arm	2		
	4	EGSD1535	Head Chassis Ass'y	2		
	5	EGSD1537	Pack Spring	2		
	6	EGSD1508	Pause Level	1		
	7	EGSD1509	Stop Lever	2		
	8	EGSD1504	Play Lever	2		
	9	EGSD1506	FF Lever	2		
	10	EGSD1507	Rew Lever	2		
	11	EGSD1505	Rec Lever	1		
	12	EGSD1570	Rew Arm (S)	2		
	13	EGSD1525	Lock Cam (A) Ass'y	2		
	14	EGMD1270	Washer (B)	2		
	15	EGSC1550	Motor Bracket	1		
	16	EGSD1544	Button Bracket (RF)	1		
	17	EGSD1533	Button Bracket (LW)	1		
	18	EGSDS1604	Button Bracket	1		
	19	EGSD3552	Flywheel Ass'y	2		
	20	SDST2610Z	Screw	1		
	21	EGSD1593	Switch Bracket (F)	2		
	22	SDST2005	Screw	1		
	23	EGSD2513	Button Shaft	2		
	24	EGMD2043	Button Collar	2		
	25					
	26	8233023431	Washer (S)	1		
	27	EGMD3020	Sencer Cap	2		
	28	EGSC3506	head Base	2		
	29	EGMC3021	Rec Sencer	1		
	30	EGSD3537	Idler Arm Ass'y	2		
	31	EGSB3502	Lever Base (A)	2		
	32	EGSB3501	Lever Base (B)	2		
	33	EGSC3504	Pause Cam	1		
	34	EGSD3534	Clutch Arm Ass'y (W)	2		
	35	EGMD3153	T. Reel Ass'y	2		
	36	EGSC3550	S. Reel	2		
	37	EGSD3509	FF Gear	2		
	38					
	39	EGMD3062	Tape Guide	1		
	40	EGSD3543	Motor Pulley	1		
	41	EGSC3505	Eject Lever (F)	1		
	42	EGSC3517	Eject Lever (W)	1		
	43	E33754-001	Nylon Band	1		
	44	1114-03-02	Cord Clamp	4		
	45					
	46	EGZD4707	Pinch Roller	2		
	47	EGMD4002	Motor Cushion	2		
	48	EGZD4704	Belt	2		
	49	EGSD4508	Belt	2		
	50	LSA-119G	Leaf Switch	1		
	51	LSA-1120F-1N	Leaf Switch	1		
	52	EGSD5501	Housing Ass'y	2		
	53	SDSP2009Z	Screw	8		
	54	8170020001	Lug Plate	1		
	55	EGSD6522	Head Chassis Spring	2		
	56	EGKD6009	Head Spring	2		
	57	EGSD6503	Idler Arm Spring	2		
	58	EGSD6504	Auto Arm Spring	2		
	59	EGSD6505	Pause Lever Spring	1		
	60	EGSD6506	Lever Spring (A)	3		

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	61	EGSD6521	Lever Spring (C)	6		
	62	EGSD6508	Cam Spring	2		
	63	EGSD6509	Clutch Arm Spring	2		
	64	EGSD6510	Eject Spring	1		
	65	EGSD6514	Back Tension Spring	4		
	66	8342121013	Polyslider Washer	2		
	67	LSA-119R	Leaf Switch	2		
	68	LSA-1120C-1	Leaf Switch	2		
	69	ENZ6004-005	R/P Head	2		
	70	EGBME-188	E Head	1		
	71	EGSHL-2LSA	Motor Ass'y	1		
	72	8341116033	Polyslider Washer	2		
	73	EGMD8002	Screw (A)	1		
	74	EGSD8501	Screw (P)	4		
	75	EGSD8511	Motor Screw	2		
	76					
	77	EGSD8515	Insulator Sheet	2		
	78	8341121034	Polyslider Washer	2		
	79	8341116029	Polyslider Washer	4		
	80	8341112032	Polyslider Wahser	2		
	81	E304172-001	Button	1		
	82	E304172-002	Button	1		
	83	E304172-003	Button	1		
	84	8213112004	Screw	23		
	85	E304172-004	Button	1		
	86	E304172-005	Button	1		
	87	E304172-006	Button	1		
	88	LSA-1132EAU	Leaf Switch	2		
	89	SSST2005	Screw	4		
	90	SPST2605	Screw	2		
	91	EGSDS1558	Switch Guard	2		
	92	E304172-007	Button	1		
	93	E304172-008	Button	1		
	94	E304172-009	Button	1		
	95	E304172-010	Button	1		



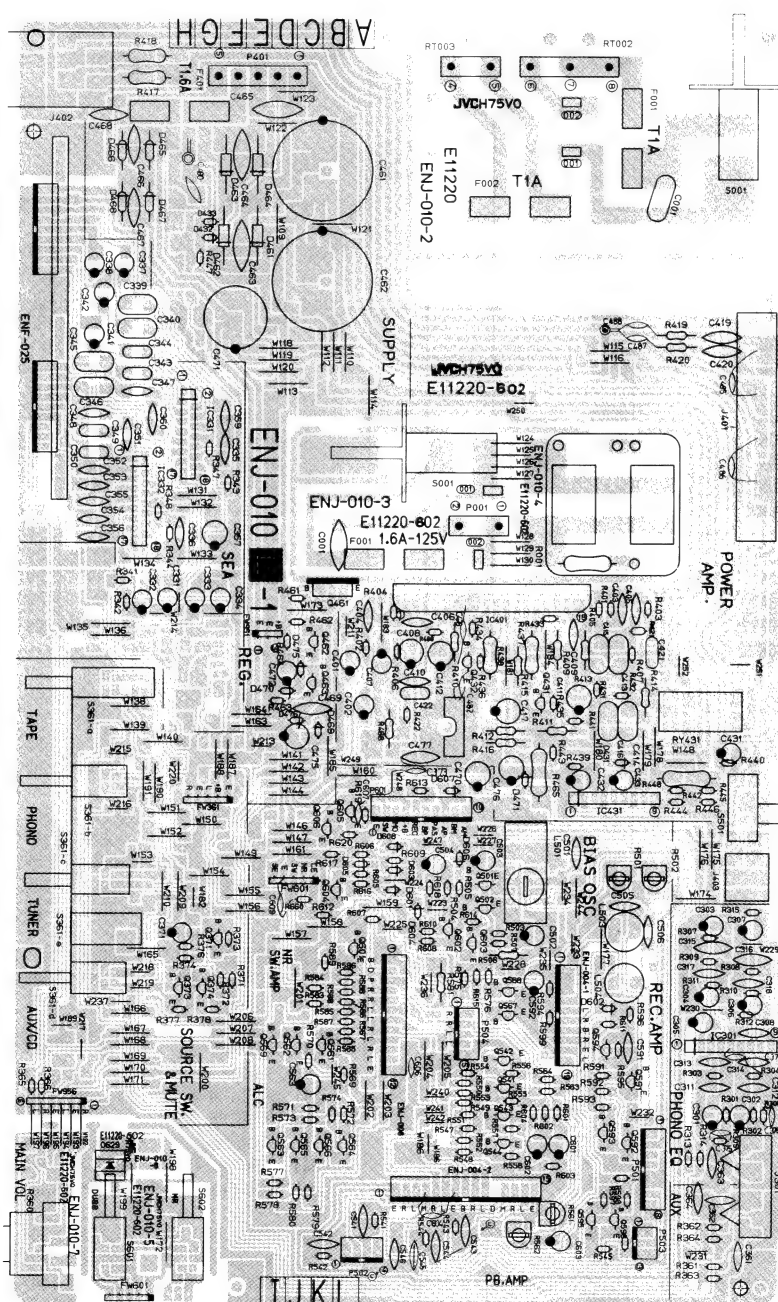
# Printed Circuit Board Ass'y and Parts List

## ■ ENJ-010 □ Cassette Amplifier and Audio Amplifier P.C. Board Ass'y

Note : ENJ-010 □ Varies according to the areas employed. See Note (1) when placing an order.

Note (1)

P.C. Board Ass'y	Designated Areas
ENJ-010 <b>I</b>	U.S. Military Market & Other Countries
ENJ-010 <b>J</b> BS	U.K.
ENJ-010 <b>K</b>	Australia, Europe & Italy
ENJ-010 <b>L</b>	West Germany





## Transistor

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	Q371	2SA933 (R, S)	SILICON	ROHM	
	Q373	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q374	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q431	2SC1741A (Q, R)	SILICON	ROHM	
	Q432	2SC1741A (Q, R)	SILICON	ROHM	
	Q461	2SB941A (P, Q)	SILICON	MATSUSHITA	
	Q462	2SA933 (R, S)	SILICON	ROHM	
	Q463	2SC1740 (R, S)	SILICON	ROHM	
	Q501	2SC1741A (Q, R)	SILICON	ROHM	
	Q502	2SC1741A (Q, R)	SILICON	ROHM	
	Q541	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q542	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q543	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q544	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q561	2SC1740 (R, S)	SILICON	ROHM	
	Q562	2SC1740 (R, S)	SILICON	ROHM	
	Q563	2SC1740 (R, S)	SILICON	ROHM	
	Q564	2SC1740 (R, S)	SILICON	ROHM	
	Q565	2SC1740 (R, S)	SILICON	ROHM	
	Q566	2SC1740 (R, S)	SILICON	ROHM	
	Q567	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q568	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q569	2SC1740 (R, S)	SILICON	ROHM	
	Q591	2SC1741A (Q, R)	SILICON	ROHM	
	Q592	2SC1741A (Q, R)	SILICON	ROHM	
	Q593	2SC1741A (Q, R)	SILICON	ROHM	
	Q594	2SA1038 (S, E)	SILICON	ROHM	
	Q595	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q596	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q601	2SC1740 (R, S)	SILICON	ROHM	
	Q602	2SC1740 (R, S)	SILICON	ROHM	
	Q603	2SC1740 (R, S)	SILICON	ROHM	
	Q604	2SC1740 (R, S)	SILICON	ROHM	
	Q605	DTC114YN	SILICON	ROHM	
	Q606	2SC3377 (Q, R)	SILICON	ROHM	

## I.C.s

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	IC301	BA715DX	I.C.	ROHM	
	IC331	BA3812L	I.C.	ROHM	
	IC332	BA3812L	I.C.	ROHM	
	IC401	STK4141MK5	I.C.	SANYO	
	IC431	TA7317P	I.C.	TOSHIBA	

## Diodes

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	D431	1SS133	SILICON	ROHM	
	D432	1SS133	SILICON	ROHM	
	D433	1SS133	SILICON	ROHM	
	D461	ERB12-02RKL1	SILICON	FUJI	
	D462	ERB12-02RKL1	SILICON	FUJI	
	D463	ERB12-02RKL1	SILICON	FUJI	
	D464	ERB12-02RKL1	SILICON	FUJI	
	D465	11E2	SILICON	NIHONINTER	
	D466	11E2	SILICON	NIHONINTER	
	D467	11E2	SILICON	NIHONINTER	

## Diodes

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	D468	11E2	SILICON		
	D469	1SS133	SILICON	ROHM	
	D470	MTZ12C	ZENER	ROHM	
	D471	MTZ9.1C	ZENER	ROHM	
	D475	1SS133	SILICON	ROHM	
	D476	MTZ13C	ZENER	ROHM	
	D601	1SS133	SILICON	ROHM	
	D602	1SS133	SILICON	ROHM	
	D603	1SS133	SILICON	ROHM	
	D604	1SS133	SILICON	ROHM	
	D605	1SS133	SILICON	ROHM	
	D606	1SS133	SILICON	ROHM	
	D607	1SS133	SILICON	ROHM	
	D608	1SS133	SILICON	ROHM	
	D629	SLB-26VM50F	L.E.D.	ROHM	

## Capacitors

▲	ITEM	PART NUMBER	DESCRIPTION			AREA
	C001	QCZ9019-472	4700PF	400V	CERAMIC	I K L JBS
	C001	QCZ9019-472	4700PF	400V	CERAMIC	
	C001	QCZ9019-472	4700PF	400V	CERAMIC	
	C001	QCZ9019-472BS	4700PF	400V	CERAMIC	
	C301	QETB1HM-225	2.2MF	50V	ELECTRO	
	C302	QETB1HM-225	2.2MF	50V	ELECTRO	
	C303	QETB1AM-476	47MF	10V	ELECTRO	
	C304	QETB1AM-476	47MF	10V	ELECTRO	
	C305	QETB1HM-225	2.2MF	50V	ELECTRO	
	C306	QETB1HM-225	2.2MF	50V	ELECTRO	
	C307	QETB1EM-106	10MF	25V	ELECTRO	
	C308	QCF21HP-473	0.047MF	50V	CERAMIC	
	C311	QCS21HJ-101	100PF	50V	CERAMIC	
	C312	QCS21HJ-101	100PF	50V	CERAMIC	
	C313	QCS21HJ-101	100PF	50V	CERAMIC	
	C314	QCS21HJ-101	100PF	50V	CERAMIC	
	C315	QCY21HK-682	6800PF	50V	CERAMIC	
	C316	QCY21HK-682	6800PF	50V	CERAMIC	
	C317	QCY21HK-182	1800PF	50V	CERAMIC	
	C318	QCY21HK-182	1800PF	50V	CERAMIC	
	C331	QETB1HM-225	2.2MF	50V	ELECTRO	
	C332	QETB1HM-225	2.2MF	50V	ELECTRO	
	C333	QETB1EM-106	10MF	25V	ELECTRO	
	C334	QETB1EM-106	10MF	25V	ELECTRO	
	C335	QCS21HJ-101	100PF	50V	CERAMIC	
	C336	QCS21HJ-101	100PF	50V	CERAMIC	
	C337	QETB1HM-225	2.2MF	50V	ELECTRO	
	C338	QETB1HM-225	2.2MF	50V	ELECTRO	
	C339	QFN81HK-273	0.027MF	50V	MYLAR	
	C340	QFN81HK-273	0.027MF	50V	MYLAR	
	C341	QETB1HM-474	0.47MF	50V	ELECTRO	
	C342	QETB1HM-474	0.47MF	50V	ELECTRO	
	C343	QFN81HK-822	8200PF	50V	MYLAR	
	C344	QFN81HK-822	8200PF	50V	MYLAR	
	C345	QFN81HK-124	0.12MF	50V	MYLAR	
	C346	QFN81HK-124	0.12MF	50V	MYLAR	
	C347	QCY21HK-222	2200PF	50V	CERAMIC	
	C348	QCY21HK-222	2200PF	50V	CERAMIC	
	C349	QFN81HK-333	0.033MF	50V	MYLAR	
	C350	QFN81HK-333	0.033MF	50V	MYLAR	



## Capacitors

▲	ITEM	PART NUMBER	DESCRIPTION				AREA
	C351	QCS21HJ-471	470PF	50V	CERAMIC		
	C352	QCS21HJ-471	470PF	50V	CERAMIC		
	C353	QCY21HK-822	8200PF	50V	CERAMIC		
	C354	QCY21HK-822	8200PF	50V	CERAMIC		
	C355	QCS21HJ-121	120PF	50V	CERAMIC		
	C356	QCS21HJ-121	120PF	50V	CERAMIC		
	C357	QETB1AM-107	100MF	10V	ELECTRO		
	C359	QCS21HJ-331	330PF	50V	CERAMIC		
	C360	QCS21HJ-331	330PF	50V	CERAMIC		
	C361	QCS21HJ-101	100PF	50V	CERAMIC		L
	C362	QCS21HJ-101	100PF	50V	CERAMIC		L
	C363	QCF21HP-223	0.022MF	50V	CERAMIC		L
	C363	QCS21HJ-101	100PF	50V	CERAMIC		I
	C363	QCS21HJ-101	100PF	50V	CERAMIC		JBS
	C363	QCS21HJ-101	100PF	50V	CERAMIC		K
	C364	QCF21HP-103	0.01MF	50V	CERAMIC		
	C371	QETB1HM-225	2.2MF	50V	ELECTRO		
	C372	QCF11HP-103A	0.01MF	50V	CERAMIC		L
	C373	QCF21HP-223A	0.022MF	50V	CERAMIC		L
	C375	QCS21HJ-471A	470PF	50V	CERAMIC		L
	C376	QCS21HJ-471A	470PF	50V	CERAMIC		L
	C401	QEK61HM-475	4.7MF	50V	ELECTRO		I
	C401	QEK61HM-475	4.7MF	50V	ELECTRO		JBS
	C401	QEK61HM-475	4.7MF	50V	ELECTRO		K
	C401	QEK61HM-475	4.7MF	50V	ELECTRO		L
	C402	QEK61HM-475	4.7MF	50V	ELECTRO		I
	C402	QEK61HM-475	4.7MF	50V	ELECTRO		JBS
	C402	QEK61HM-475	4.7MF	50V	ELECTRO		K
	C402	QEK61HM-475	4.7MF	50V	ELECTRO		L
	C403	QCS21HJ-121	120PF	50V	CERAMIC		I
	C403	QCS21HJ-121	120PF	50V	CERAMIC		JBS
	C403	QCS21HJ-121	120PF	50V	CERAMIC		K
	C403	QCS21HJ-220	22PF	50V	CERAMIC		L
	C404	QCS21HJ-121	120PF	50V	CERAMIC		I
	C404	QCS21HJ-121	120PF	50V	CERAMIC		JBS
	C404	QCS21HJ-121	120PF	50V	CERAMIC		K
	C404	QCS21HJ-220	22PF	50V	CERAMIC		L
	C405	QCS21HJ-151	150PF	50V	CERAMIC		L
	C405	QCS21HJ-820	82PF	50V	CERAMIC		I
	C405	QCS21HJ-820	82PF	50V	CERAMIC		JBS
	C405	QCS21HJ-820	82PF	50V	CERAMIC		K
	C405	QCS21HJ-820	82PF	50V	CERAMIC		L
	C406	QCS21HJ-820	82PF	50V	CERAMIC		I
	C406	QCS21HJ-820	82PF	50V	CERAMIC		JBS
	C406	QCS21HJ-820	82PF	50V	CERAMIC		K
	C407	QETB1CM-226	22MF	16V	ELECTRO		
	C408	QETB1CM-226	22MF	16V	ELECTRO		
	C409	QCS21HJ-100	10PF	50V	CERAMIC		
	C410	QCS21HJ-100	10PF	50V	CERAMIC		
	C411	QETB1HM-226	22MF	50V	ELECTRO		
	C412	QETB1HM-226	22MF	50V	ELECTRO		
	C413	QFV81HJ-104	0.1MF	50V	T.FILM		
	C414	QFV81HJ-104	0.1MF	50V	T.FILM		
	C415	QFV81HJ-104	0.1MF	50V	T.FILM		
	C416	QFV81HJ-104	0.1MF	50V	T.FILM		
	C417	QETB1HM-107	100MF	50V	ELECTRO		
	C419	QCF21HP-473	0.047MF	50V	CERAMIC		
	C420	QCF21HP-473	0.047MF	50V	CERAMIC		
	C431	QETB1HM-105	1MF	50V	ELECTRO		
	C432	QETB1AM-476	47MF	10V	ELECTRO		

## Capacitors

▲	ITEM	PART NUMBER	DESCRIPTION				AREA
	C433	QETB1CM-226	22MF	16V	ELECTRO		
	C461	QEZ0061-478	4700MF	50V	NON POLE		
	C462	QEZ0061-478	4700MF	50V	NON POLE		
	C463	QCE22HP-103	0.01MF	500V	CERAMIC		
	C464	QCE22HP-103	0.01MF	500V	CERAMIC		
	C465	QCE22HP-103	0.01MF	500V	CERAMIC		
	C466	QCF21HP-103	0.01MF	50V	CERAMIC		
	C467	QCF21HP-103	0.01MF	50V	CERAMIC		
	C468	QCF21HP-103	0.01MF	50V	CERAMIC		
	C469	QCF21HP-103	0.01MF	50V	CERAMIC		
	C470	QETB1EM-107	100MF	25V	ELECTRO		
	C471	QETB1EM-228E	2200MF	25V	ELECTRO		
	C472	QETB1EM-106	10MF	25V	ELECTRO		
	C475	QETB1CM-476	47MF	16V	ELECTRO		
	C476	QETB1HM-225	2.2MF	50V	ELECTRO		
	C477	QCF21HP-103	0.01MF	50V	CERAMIC		
	C478	QCS11HJ-680A	68PF	50V	CERAMIC		L
	C479	QCS21HJ-470A	47PF	50V	CERAMIC		L
	C480	QCS21HJ-470A	47PF	50V	CERAMIC		L
	C481	QCS21HJ-101A	100PF	50V	CERAMIC		L
	C482	QCY21HK-222	2200PF	50V	CERAMIC		L
	C483	QCS21HJ-471A	470PF	50V	CERAMIC		L
	C484	QCS21HJ-471A	470PF	50V	CERAMIC		L
	C485	QCS21HJ-330A	33PF	50V	CERAMIC		L
	C486	QCS21HJ-330A	33PF	50V	CERAMIC		L
	C487	QCY21HK-332	3300PF	50V	CERAMIC		L
	C488	QCY21HK-332	3300PF	50V	CERAMIC		L
	C489	QCF21HP-103A	0.01MF	50V	CERAMIC		L
	C490	QCF21HP-223A	0.022MF	50V	CERAMIC		L
	C491	QCF21HP-223A	0.022MF	50V	CERAMIC		L
	C492	QCS21HJ-101A	100PF	50V	CERAMIC		L
	C501	QCS21HJ-561	560PF	50V	CERAMIC		
	C502	QETB1EM-106	10MF	25V	ELECTRO		
	C503	QETB1HM-105	1MF	50V	ELECTRO		
	C504	QETB1HM-105	1MF	50V	ELECTRO		
	C505	QCS21HJ-101	100PF	50V	CERAMIC		
	C506	QCS21HJ-101	100PF	50V	CERAMIC		
	C541	QCS21HJ-471	470PF	50V	CERAMIC		
	C542	QCS21HJ-471	470PF	50V	CERAMIC		
	C543	QCS21HJ-561	560PF	50V	CERAMIC		
	C544	QCS21HJ-561	560PF	50V	CERAMIC		
	C545	QCS21HJ-101	100PF	50V	CERAMIC		I
	C545	QCS21HJ-101	100PF	50V	CERAMIC		JBS
	C545	QCS21HJ-101	100PF	50V	CERAMIC		K
	C546	QCF21HP-103	0.01MF	50V	CERAMIC		
	C563	QEK61CM-106G	10MF	16V	ELECTRO		
	C591	QCF21HP-103	0.01MF	50V	CERAMIC		
	C592	QETB1CM-476	47MF	16V	ELECTRO		
	C601	QEK61EM-475G	4.7MF	25V	ELECTRO		
	C602	QEK61EM-475G	4.7MF	25V	ELECTRO		
	C603	QETB1HM-105	1MF	50V	ELECTRO		
	C604	QCY41HK-222	2200PF	50V	CERAMIC		L
	C605	QCF21HP-103A	0.01MF	50V	CERAMIC		L
	C606	QCS11HJ-101A	100PF	50V	CERAMIC		L
	C607	QCS11HJ-471A	470PF	50V	CERAMIC		L
	C608	QCF21HP-473A	0.047MF	50V	CERAMIC		L
	C609	QCY21HK-102	1000PF	50V	CERAMIC		L



## Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R301	QRD161J-272	2.7K	1/6W	CARBON	
	R302	QRD161J-272	2.7K	1/6W	CARBON	
	R303	QRD161J-104	100K	1/6W	CARBON	
	R304	QRD161J-104	100K	1/6W	CARBON	
	R305	QRD161J-104	100K	1/6W	CARBON	
	R306	QRD161J-104	100K	1/6W	CARBON	
	R307	QRD161J-474	470K	1/6W	CARBON	
	R308	QRD161J-474	470K	1/6W	CARBON	
	R309	QRD161J-393	39K	1/6W	CARBON	
	R310	QRD161J-393	39K	1/6W	CARBON	
	R311	QRD161J-102	1K	1/6W	CARBON	
	R312	QRD161J-102	1K	1/6W	CARBON	
	R313	QRD161J-153	15K	1/6W	CARBON	
	R314	QRD161J-153	15K	1/6W	CARBON	
	R315	QRD161J-221	220	1/6W	CARBON	
	R341	QRD161J-102	1K	1/6W	CARBON	
	R342	QRD161J-102	1K	1/6W	CARBON	
	R343	QRD161J-392	3.9K	1/6W	CARBON	
	R344	QRD161J-392	3.9K	1/6W	CARBON	
	R347	QRD161J-392	3.9K	1/6W	CARBON	
	R348	QRD161J-392	3.9K	1/6W	CARBON	
	R361	QRD161J-333	33K	1/6W	CARBON	
	R362	QRD161J-333	33K	1/6W	CARBON	
	R363	QRD161J-393	39K	1/6W	CARBON	
	R364	QRD161J-393	39K	1/6W	CARBON	
	R365	QRD161J-472	4.7K	1/6W	CARBON	
	R366	QRD161J-472	4.7K	1/6W	CARBON	
	R371	QRD161J-473	47K	1/6W	CARBON	
	R372	QRD161J-473	47K	1/6W	CARBON	
	R373	QRD161J-223	22K	1/6W	CARBON	
	R374	QRD161J-223	22K	1/6W	CARBON	
	R376	QRD161J-102	1K	1/6W	CARBON	
	R377	QRD161J-473	47K	1/6W	CARBON	
	R378	QRD161J-473	47K	1/6W	CARBON	
	R401	QRD161J-102	1K	1/6W	CARBON	
	R402	QRD161J-102	1K	1/6W	CARBON	
	R403	QRD161J-104	100K	1/6W	CARBON	
	R404	QRD161J-104	100K	1/6W	CARBON	
	R405	QRD161J-471	470	1/6W	CARBON	
	R406	QRD161J-471	470	1/6W	CARBON	
	R407	QRD161J-104	100K	1/6W	CARBON	
	R408	QRD161J-104	100K	1/6W	CARBON	
	R409	QRD148J-272S	2.7K	1/4W	CARBON	
	R410	QRD148J-272S	2.7K	1/4W	CARBON	
	R411	QRD148J-222S	2.2K	1/4W	CARBON	
	R412	QRD148J-222S	2.2K	1/4W	CARBON	
△	R413	QRZ0062-100	10	1/4W	FUSIBLE	
△	R414	QRZ0062-100	10	1/4W	FUSIBLE	
△	R415	QRZ0062-100	10	1/4W	FUSIBLE	
△	R416	QRZ0062-101	100	1/4W	FUSIBLE	
△	R417	QRD125J-221	220	1/2W	UNF. CARBON	
△	R418	QRD125J-221	220	1/2W	UNF. CARBON	
△	R419	QRZ0062-100	10	1/4W	FUSIBLE	
△	R420	QRZ0062-100	10	1/4W	FUSIBLE	
	R431	QRD161J-104	100K	1/6W	CARBON	
	R432	QRD161J-104	100K	1/6W	CARBON	
	R433	QRD161J-222	2.2K	1/6W	CARBON	
	R434	QRD161J-222	2.2K	1/6W	CARBON	
	R435	QRD161J-272	2.7K	1/6W	CARBON	
	R436	QRD161J-272	2.7K	1/6W	CARBON	

△ Safety Parts

## Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
△	R437	QRX012J-R22A	0.22	1W	M.FILM	
△	R438	QRX012J-R22A	0.22	1W	M.FILM	
	R439	QRD161J-683	68K	1/6W	CARBON	
	R440	QRD161J-103	10K	1/6W	CARBON	
	R441	QRD161J-562	5.6K	1/6W	CARBON	
	R442	QRD161J-274	270K	1/6W	CARBON	
	R443	QRD161J-223	22K	1/6W	CARBON	
	R444	QRD161J-563	56K	1/6W	CARBON	
	R445	QRD161J-223	22K	1/6W	CARBON	
	R446	QRD161J-473	47K	1/6W	CARBON	
	R447	QRD161J-103	10K	1/6W	CARBON	
△	R448	QRG022J-471AF	470	2W	O.M.FILM	
	R461	QRD161J-332	3.3K	1/6W	CARBON	
	R462	QRD161J-332	3.3K	1/6W	CARBON	
	R463	QRD161J-102	1K	1/6W	CARBON	
	R464	QRD161J-103	10K	1/6W	CARBON	
△	R465	QRG022J-102AF	1K	2W	O.M.FILM	
△	R468	QRZ0062-100	10	1/4W	FUSIBLE	
	R501	QVZ3518-224	220K	0.1W	VARIABLE	
	R502	QVZ3518-224	220K	0.1W	VARIABLE	
	R503	QRD161J-331	330	1/6W	CARBON	
	R504	QRD161J-222	2.2K	1/6W	CARBON	
	R505	QRD161J-222	2.2K	1/6W	CARBON	
△	R506	QRZ0062-150	15	1/4W	FUSIBLE	
	R507	QRD161J-271	270	1/6W	CARBON	
	R541	QRD161J-154	150K	1/6W	CARBON	
	R542	QRD161J-154	150K	1/6W	CARBON	
	R543	QRD161J-154	150K	1/6W	CARBON	
	R544	QRD161J-154	150K	1/6W	CARBON	
	R545	QRD161J-100	10	1/6W	CARBON	
	R546	QRD161J-100	10	1/6W	CARBON	
	R547	QRD161J-562	5.6K	1/6W	CARBON	
	R548	QRD161J-562	5.6K	1/6W	CARBON	
	R549	QRD161J-562	5.6K	1/6W	CARBON	
	R550	QRD161J-562	5.6K	1/6W	CARBON	
	R551	QRD161J-103	10K	1/6W	CARBON	
	R552	QRD161J-103	10K	1/6W	CARBON	
	R553	QRD161J-103	10K	1/6W	CARBON	
	R554	QRD161J-103	10K	1/6W	CARBON	
	R555	QRD161J-223	22K	1/6W	CARBON	
	R556	QRD161J-223	22K	1/6W	CARBON	
	R557	QRD161J-223	22K	1/6W	CARBON	
	R558	QRD161J-223	22K	1/6W	CARBON	
	R561	QVZ3518-473	47K	0.1W	VARIABLE	
	R562	QVZ3518-473	47K	0.1W	VARIABLE	
	R563	QRD161J-103	10K	1/6W	CARBON	
	R564	QRD161J-103	10K	1/6W	CARBON	
	R565	QRD161J-104	100K	1/6W	CARBON	
	R566	QRD161J-104	100K	1/6W	CARBON	
	R567	QRD161J-153	15K	1/6W	CARBON	
	R568	QRD161J-153	15K	1/6W	CARBON	
	R569	QRD161J-392	3.9K	1/6W	CARBON	
	R570	QRD161J-392	3.9K	1/6W	CARBON	
	R571	QRD161J-223	22K	1/6W	CARBON	
	R572	QRD161J-223	22K	1/6W	CARBON	
	R573	QRD161J-102	1K	1/6W	CARBON	
	R574	QRD161J-102	1K	1/6W	CARBON	
	R575	QRD161J-473	47K	1/6W	CARBON	
	R576	QRD161J-473	47K	1/6W	CARBON	
	R577	QRD161J-223	22K	1/6W	CARBON	

△ Safety Parts



## Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R578	QRD161J-223	22K	1/6W	CARBON	
	R579	QRD161J-362	3.6K	1/6W	CARBON	
	R580	QRD161J-362	3.6K	1/6W	CARBON	
△	R581	QRZ0062-220	22	1/4W	FUSIBLE	
	R583	QRD161J-123	12K	1/6W	CARBON	
	R584	QRD161J-123	12K	1/6W	CARBON	
	R585	QRD161J-392	3.9K	1/6W	CARBON	
	R586	QRD161J-392	3.9K	1/6W	CARBON	
	R587	QRD161J-103	10K	1/6W	CARBON	
	R588	QRD161J-103	10K	1/6W	CARBON	
	R589	QRD161J-473	47K	1/6W	CARBON	
	R591	QRD161J-822	8.2K	1/6W	CARBON	
	R592	QRD161J-822	8.2K	1/6W	CARBON	
	R593	QRD161J-682	6.8K	1/6W	CARBON	
	R594	QRD161J-221	220	1/6W	CARBON	
	R595	QRD161J-223	22K	1/6W	CARBON	
	R596	QRD161J-223	22K	1/6W	CARBON	
	R597	QRD161J-103	10K	1/6W	CARBON	
	R598	QRD161J-103	10K	1/6W	CARBON	
	R599	QRD161J-221	220	1/6W	CARBON	
	R601	QRD161J-102	1K	1/6W	CARBON	
	R602	QRD161J-102	1K	1/6W	CARBON	
	R603	QRD161J-473	47K	1/6W	CARBON	
	R604	QRD161J-473	47K	1/6W	CARBON	
	R605	QRD161J-222	2.2K	1/6W	CARBON	
	R606	QRD161J-222	2.2K	1/6W	CARBON	
	R607	QRD161J-473	47K	1/6W	CARBON	
	R608	QRD161J-473	47K	1/6W	CARBON	
	R609	QRD161J-473	47K	1/6W	CARBON	
	R610	QRD161J-332	3.3K	1/6W	CARBON	
	R611	QRD161J-223	22K	1/6W	CARBON	
	R612	QRD161J-152	1.5K	1/6W	CARBON	
	R613	QRD161J-103	10K	1/6W	CARBON	
	R614	QRD161J-473	47K	1/6W	CARBON	
	R615	QRD161J-222	2.2K	1/6W	CARBON	
	R616	QRD161J-473	47K	1/6W	CARBON	
	R617	QRD161J-222	2.2K	1/6W	CARBON	
	R618	QRD161J-473	47K	1/6W	CARBON	
	R619	QRD161J-152	1.5K	1/6W	CARBON	
	R620	QRD161J-4R7	4.7	1/6W	CARBON	
	R621	QRD161J-221	220	1/6W	CARBON	
	R660	QRD161J-152	1.5K	1/6W	CARBON	

△ Safety Parts

## Others

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	J301	EMN00TV-405A	PIN JACK ASSY	
	J401	EMB90YV-401A	SPK. TERMINAL	
	J402	QMS6312-022	JACK ASSY	
	J403	QMA1221-009	BATT. (DC) JACK	
	L501	ENZ6003-004	BIAS OSC	
	L503	EQF0401-002	FILTER	
	L504	EQF0401-002	FILTER	
	P501	QMV5005-008K	PLUG ASSY	
	P502	QMV5005-004K	PLUG ASSY	
	P503	QMV5005-003K	PLUG ASSY	
	P504	QMV5005-005K	PLUG ASSY	
	P601	QMV5005-010K	PLUG ASSY	
	RT002	E67764-203	TERMINAL ASSY	
	RT003	E67764-202	R. TERMINAL	I
	RT003	E67764-202	R. TERMINAL	JBS
	RT003	E67764-202	R. TERMINAL	K
	RT003	E67764-202	R. TERMINAL	L
	RT401	E67764-005	R. TERMINAL	
△	S001	QSP1106-004	PUSH SWITCH	I
△	S001	QSP1106-004	PUSH SWITCH	K
△	S001	QSP1106-004	PUSH SWITCH	L
△	S001	QSP1106-004BS	PUSH SWITCH	JBS
	S361	QST3481-E01	PUSH SWITCH	
	S501	QSS6A12-E01	SLIDE SWITCH	
	S601	QST3101-E05	PUSH SWITCH	
	S602	QST3101-E05	PUSH SWITCH	
	E11220-502		CIRCUIT BOARD	I
	E11220-502		CIRCUIT BOARD	K
	E11220-502BS		CIRCUIT BOARD	JBS
	E11220-602		CIRCUIT BOARD	L
	B65508-002		TAB	
	E70859-001		EARTH PLATE	
	EMG7331-001		FUSE CLIP	
	ENF-025B		PB UNIT	
	ENJ-004D		REC PB UNIT	
	ENJ-006B		DOLBY MOD UNIT	
	ESK7D24-211		RELAY	
	EWTO11-036		TERMINAL WIRE	L

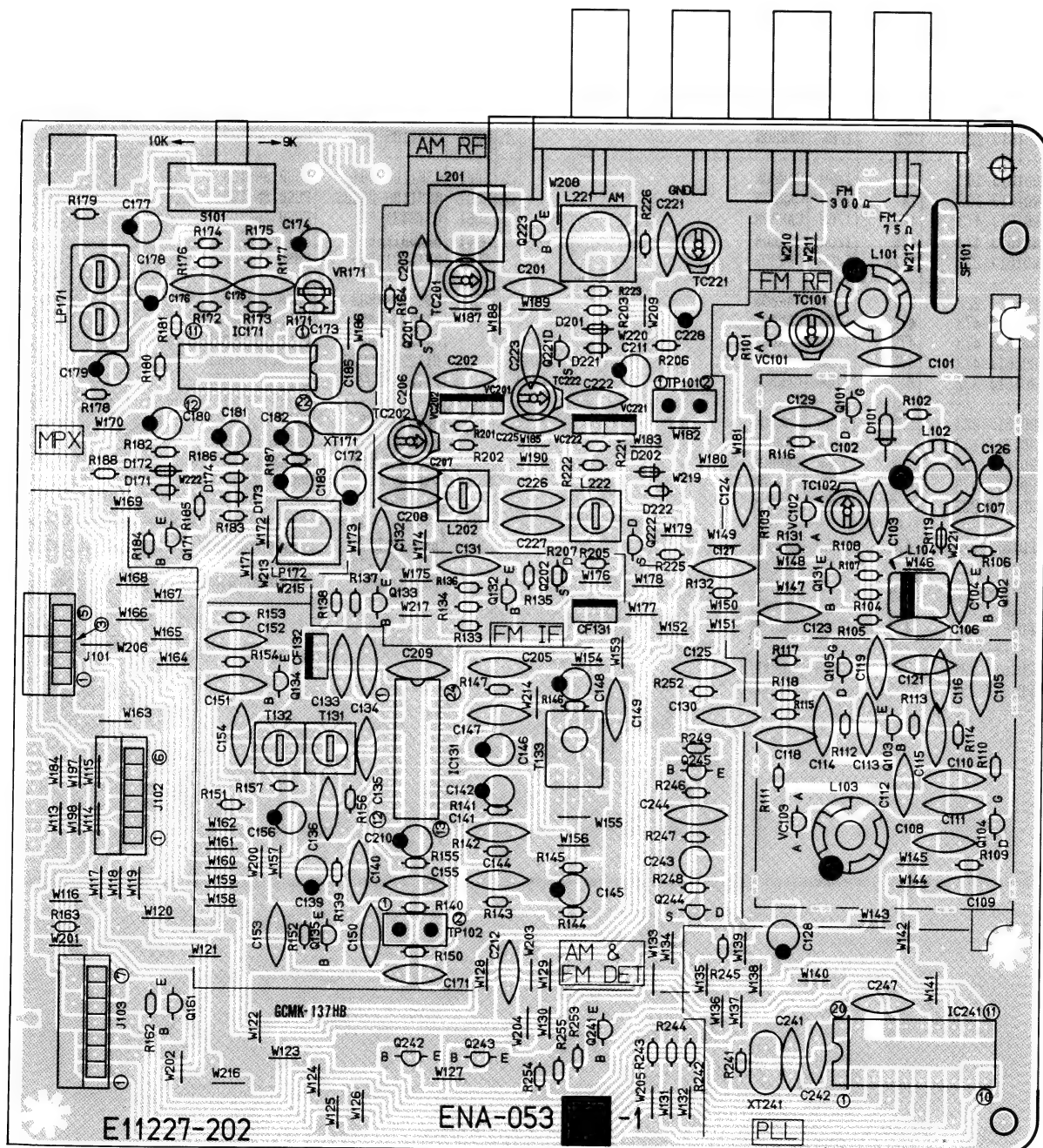


## ■ ENA-053 □ Tuner P.C. Board Ass'y

**Note :** ENA-053 □ Varies according to the areas employed. See Note (1) when placing an order.

**Note (1)**

P.C. Board Ass'y	Designated Areas
ENA-053 <span style="border: 1px solid black; padding: 0 2px;">C</span>	U.S. Military Market & Other Countries
ENA-053 <span style="border: 1px solid black; padding: 0 2px;">D</span>	Australia
ENA-053 <span style="border: 1px solid black; padding: 0 2px;">E</span>	Europe & Italy
ENA-053 <span style="border: 1px solid black; padding: 0 2px;">F</span>	West Germany
ENA-053 <span style="border: 1px solid black; padding: 0 2px;">G</span>	U.K.





## Transistors

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	Q101	2SK606 (Q, R)	F.E.T	MATSUSHITA	F
	Q102	2SC535 (B, C)	SILICON	HITACHI	
	Q103	2SC461 (C)	SILICON	HITACHI	
	Q104	2SK606 (Q, R)	F.E.T	MATSUSHITA	
	Q105	2SK606 (Q, R)	F.E.T	MATSUSHITA	
	Q131	2SC461 (B, C)	SILICON	HITACHI	
	Q132	2SC535 (B, C)	SILICON	HITACHI	
	Q133	2SC461 (B, C)	SILICON	HITACHI	
	Q134	2SC535 (B, C)	SILICON	HITACHI	
	Q135	2SC461 (B, C)	SILICON	HITACHI	
	Q171	2SC1740 (R, S)	SILICON	ROHM	
	Q201	2SK301 (Q, R)	F.E.T	MATSUSHITA	
	Q202	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q202	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q202	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q221	2SK301 (Q, R)	F.E.T	MATSUSHITA	E
	Q221	2SK301 (Q, R)	F.E.T	MATSUSHITA	
	Q221	2SK301 (Q, R)	F.E.T	MATSUSHITA	
	Q222	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q222	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q222	2SK301 (P, Q)	F.E.T	MATSUSHITA	G
	Q223	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q223	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q223	2SD1302 (S, T)	SILICON	MATSUSHITA	
	Q241	2SA933 (R, S)	SILICON	ROHM	
	Q242	2SA933 (R, S)	SILICON	ROHM	E
	Q243	2SA933 (R, S)	SILICON	ROHM	
	Q243	2SA933 (R, S)	SILICON	ROHM	
	Q243	2SA933 (R, S)	SILICON	ROHM	
	Q244	2SK301 (Q1)	F.E.T	MATSUSHITA	
	Q245	2SC458 (D)	SILICON	HITACHI	

## I.C.s

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	IC131	LA1267S	I.C.	SANYO	
	IC171	LA3401	I.C.	SANYO	
	IC241	LM7000N	I.C.	SANYO	

## Diodes

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	D171	1SS133	SILICON	ROHM	E
	D173	1SS133	SILICON	ROHM	
	D174	1SS133	SILICON	ROHM	
	D201	1SS133	SILICON	ROHM	
	D201	1SS133	SILICON	ROHM	
	D201	1SS133	SILICON	ROHM	G
	D202	1SS133	SILICON	ROHM	
	D202	1SS133	SILICON	ROHM	
	D202	1SS133	SILICON	ROHM	
	D221	1SS133	SILICON	ROHM	
	D221	1SS133	SILICON	ROHM	F
	D221	1SS133	SILICON	ROHM	
	D222	1SS133	SILICON	ROHM	
	D222	1SS133	SILICON	ROHM	
	D222	1SS133	SILICON	ROHM	

## Diodes

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	VC101	SVC202 (AB)	VARICAP	SANYO	
	VC102	SVC202 (AB)	VARICAP	SANYO	
	VC103	SVC202 (AB)	VARICAP	SANYO	
	VC201	KV1236Z	VARICAP	TOKO	
	VC202	KV1236Z	VARICAP	TOKO	
	VC221	KV1236Z	VARICAP	TOKO	E
	VC221	KV1236Z	VARICAP	TOKO	
	VC221	KV1236Z	VARICAP	TOKO	
	VC222	KV1236Z	VARICAP	TOKO	
	VC222	KV1236Z	VARICAP	TOKO	
	VC222	KV1236Z	VARICAP	TOKO	E

## Capacitors

▲	ITEM	PART NUMBER	DESCRIPTION			AREA
	C101	QCS21HJ-3R0	3.0PF	50V	CERAMIC	F
	C102	QCF21HP-103	0.01MF	50V	CERAMIC	
	C103	QCS21HJ-5R0	5.0PF	50V	CERAMIC	
	C104	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C104	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C104	QCS21HJ-2R0	2.0PF	50V	CERAMIC	E
	C104	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C104	QCS21HJ-3R0	3.0PF	50V	CERAMIC	
	C105	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C105	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C105	QCS21HJ-2R0	2.0PF	50V	CERAMIC	E
	C105	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C106	QCS21HJ-151	150PF	50V	CERAMIC	
	C107	QCF21HP-103	0.01MF	50V	CERAMIC	
	C108	QCF21HP-103	0.01MF	50V	CERAMIC	
	C109	QCF21HP-103	0.01MF	50V	CERAMIC	C
	C110	QCT26CH-2R0	2.0PF	50V	CERAMIC	
	C111	QCT26TH-7R0	7.0PF	50V	CERAMIC	
	C112	QCT26CH-7R0	7.0PF	50V	CERAMIC	
	C113	QCT26CH-220	22PF	50V	CERAMIC	
	C114	QCF21HP-103	0.01MF	50V	CERAMIC	C
	C115	QCT26CH-100	10PF	50V	CERAMIC	
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	G
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C118	QCF21HP-223	0.022MF	50V	CERAMIC	
	C118	QCF21HP-223	0.022MF	50V	CERAMIC	
	C118	QCF21HP-223	0.022MF	50V	CERAMIC	
	C118	QCF21HP-223	0.022MF	50V	CERAMIC	F
	C118	QCF21HP-223	0.022MF	50V	CERAMIC	
	C119	QCT26CH-3R0	3.0PF	50V	CERAMIC	
	C121	QCS21HJ-4R0	4.0PF	50V	CERAMIC	
	C123	QCF21HP-223	0.022MF	50V	CERAMIC	
	C124	QCF21HP-223	0.022MF	50V	CERAMIC	F
	C125	QCF21HP-223	0.022MF	50V	CERAMIC	
	C127	QCS21HJ-220	22PF	50V	CERAMIC	
	C128	QETB1EM-226	22MF	25V	ELECTRO	
	C130	QCS21HJ-101	100PF	50V	CERAMIC	
	C131	QCF21HP-223	0.022MF	50V	CERAMIC	F
	C132	QCF21HP-223	0.022MF	50V	CERAMIC	
	C133	QCF21HP-223	0.022MF	50V	CERAMIC	
	C134	QCF21HP-223	0.022MF	50V	CERAMIC	
	C135	QCC21EM-223	0.022MF	25V	CERAMIC	
	C136	QCF21HP-223	0.022MF	50V	CERAMIC	F
	C139	QETB1HM-105	1MF	50V	ELECTRO	



### Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C140	QCS21HJ-101	100PF	50V	CERAMIC	E
	C140	QCS21HJ-101	100PF	50V	CERAMIC	F
	C140	QCS21HJ-221	220PF	50V	CERAMIC	C
	C140	QCS21HJ-221	220PF	50V	CERAMIC	D
	C140	QCS21HJ-221	220PF	50V	CERAMIC	G
	C141	QCF21HP-223	0.022MF	50V	CERAMIC	
	C142	QETB1EM-106	10MF	25V	ELECTRO	
	C144	QFN81HK-332	3300PF	50V	MYLAR	
	C145	QETB1HM-225	2.2MF	50V	ELECTRO	
	C146	QETB1HM-475	4.7MF	50V	ELECTRO	
	C147	QCF21HP-223	0.022MF	50V	CERAMIC	
	C148	QETB1EM-106	10MF	25V	ELECTRO	
	C149	QCF21HP-223	0.022MF	50V	CERAMIC	
	C150	QCY21HK-102	1000PF	50V	CERAMIC	
	C151	QCS21HJ-101	100PF	50V	CERAMIC	
	C152	QCF21HP-103	0.01MF	50V	CERAMIC	
	C153	QCS21HJ-101	100PF	50V	CERAMIC	
	C154	QCS21HJ-470	47PF	50V	CERAMIC	
	C155	QCF21HP-223	0.022MF	50V	CERAMIC	
	C156	QETB1HM-475	4.7MF	50V	ELECTRO	
	C171	QFN81HK-183	0.018MF	50V	MYLAR	E
	C171	QFN81HK-183	0.018MF	50V	MYLAR	F
	C171	QFN81HK-333	0.033MF	50V	MYLAR	C
	C171	QFN81HK-333	0.033MF	50V	MYLAR	D
	C171	QFN81HK-333	0.033MF	50V	MYLAR	G
	C172	QETB1EM-106	10MF	25V	ELECTRO	
	C173	QFN81HK-473	0.047MF	50V	MYLAR	
	C174	QETB1EM-106	10MF	25V	ELECTRO	
	C175	QCY21HK-102	1000PF	50V	CERAMIC	C
	C175	QCY21HK-331	330PF	50V	CERAMIC	E
	C175	QCY21HK-331	330PF	50V	CERAMIC	F
	C175	QCY21HK-681	680PF	50V	CERAMIC	D
	C175	QCY21HK-681	680PF	50V	CERAMIC	G
	C176	QCY21HK-102	1000PF	50V	CERAMIC	C
	C176	QCY21HK-331	330PF	50V	CERAMIC	E
	C176	QCY21HK-331	330PF	50V	CERAMIC	F
	C176	QCY21HK-681	680PF	50V	CERAMIC	D
	C176	QCY21HK-681	680PF	50V	CERAMIC	G
	C177	QETB1HM-225	2.2MF	50V	ELECTRO	
	C178	QETB1HM-225	2.2MF	50V	ELECTRO	
	C179	QETB1HM-225	2.2MF	50V	ELECTRO	
	C180	QETB1HM-105	1MF	50V	ELECTRO	
	C181	QETB1HM-105	1MF	50V	ELECTRO	
	C182	QETB1HM-474	0.47MF	50V	ELECTRO	
	C183	QETB1HM-225	2.2MF	50V	ELECTRO	
	C185	QCY21HK-102	1000PF	50V	CERAMIC	F
	C187	QCS21HJ-331A	330PF	50V	CERAMIC	F
	C188	QCS21HJ-331A	330PF	50V	CERAMIC	F
	C202	QCC21EM-223	0.022MF	25V	CERAMIC	
	C203	QCS21HJ-561	560PF	50V	CERAMIC	
	C205	QCF21HP-223	0.022MF	50V	CERAMIC	
	C206	QCT26CH-100	10PF	50V	CERAMIC	
	C207	QCT26CH-221	220PF	50V	CERAMIC	
	C208	QCT26CH-271	270PF	50V	CERAMIC	
	C209	QCF21HP-223	0.022MF	50V	CERAMIC	
	C210	QETB1EM-106	10MF	25V	ELECTRO	
	C211	QETB1EM-106	10MF	25V	ELECTRO	
	C212	QCF21HP-103	0.01MF	50V	CERAMIC	
	C213	QCT26CH-100	10PF	50V	CERAMIC	
	C221	QCS21HJ-330	33PF	50V	CERAMIC	E

### Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C221	QCS21HJ-330	33PF	50V	CERAMIC	F
	C221	QCS21HJ-330	33PF	50V	CERAMIC	G
	C222	QCC21EM-473	0.047MF	25V	CERAMIC	E
	C222	QCC21EM-473	0.047MF	25V	CERAMIC	F
	C222	QCC21EM-473	0.047MF	25V	CERAMIC	G
	C223	QCY21HK-272	2700PF	50V	CERAMIC	E
	C223	QCY21HK-272	2700PF	50V	CERAMIC	F
	C223	QCY21HK-272	2700PF	50V	CERAMIC	G
	C225	QCT26CH-680	68PF	50V	CERAMIC	E
	C225	QCT26CH-680	68PF	50V	CERAMIC	F
	C225	QCT26CH-680	68PF	50V	CERAMIC	G
	C226	QCT26CH-151	150PF	50V	CERAMIC	E
	C226	QCT26CH-151	150PF	50V	CERAMIC	F
	C226	QCT26CH-151	150PF	50V	CERAMIC	G
	C227	QCT26CH-150	15PF	50V	CERAMIC	E
	C227	QCT26CH-150	15PF	50V	CERAMIC	F
	C228	QETB1EM-106	10MF	25V	ELECTRO	E
	C228	QETB1EM-106	10MF	25V	ELECTRO	F
	C228	QETB1EM-106	10MF	25V	ELECTRO	G
	C229	QCT26CH-7R0	7.0PF	50V	CERAMIC	E
	C229	QCT26CH-7R0	7.0PF	50V	CERAMIC	F
	C229	QCT26CH-7R0	7.0PF	50V	CERAMIC	G
	C241	QCS21HJ-180	18PF	50V	CERAMIC	
	C242	QCS21HJ-180	18PF	50V	CERAMIC	
	C243	QEN51HM-474	0.47MF	50V	NON POLE	
	C244	QCY21HK-102	1000PF	50V	CERAMIC	
	C247	QCC21EM-473	0.047MF	25V	CERAMIC	
	C249	QCS21HJ-101A	100PF	50V	CERAMIC	F
	C250	QCS21HJ-101A	100PF	50V	CERAMIC	F
	C251	QCS21HJ-101A	100PF	50V	CERAMIC	F
	C252	QCY21HK-102	1000PF	50V	CERAMIC	F
	C253	QCS21HJ-101A	100PF	50V	CERAMIC	F
	C254	QFV81HJ-824	0.82MF	50V	T. FILM	F
	TC101	ENZ1003-003	6.0pF	50V	TRIMMER	
	TC102	ENZ1003-003	6.0pF	50V	TRIMMER	
	TC201	ENZ1003-006	15.5pF	50V	TRIMMER	
	TC221	ENZ1003-006	15.5pF	50V	TRIMMER	E
	TC221	ENZ1003-006	15.5pF	50V	TRIMMER	F
	TC221	ENZ1003-006	15.5pF	50V	TRIMMER	G

### Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R101	QRD161J-473	47K	1/6W	CARBON	
	R102	QRD161J-330	33	1/6W	CARBON	
	R103	QRD161J-473	47K	1/6W	CARBON	
	R104	QRD161J-223	22K	1/6W	CARBON	
	R105	QRD161J-332	3.3K	1/6W	CARBON	
	R106	QRD161J-102	1K	1/6W	CARBON	
	R107	QRD161J-102	1K	1/6W	CARBON	
	R108	QRD161J-330	33	1/6W	CARBON	
	R109	QRD161J-331	330	1/6W	CARBON	
	R110	QRD161J-224	220K	1/6W	CARBON	
	R111	QRD161J-472	4.7K	1/6W	CARBON	
	R112	QRD161J-103	10K	1/6W	CARBON	
	R113	QRD161J-682	6.8K	1/6W	CARBON	
	R114	QRD161J-222	2.2K	1/6W	CARBON	
	R115	QRD161J-561	560	1/6W	CARBON	



# Resistors

△	ITEM	PART NUMBER	DESCRIPTION				AREA
	R116	QRD161J-221	220	1/6W	CARBON		F F F
	R117	QRD161J-224	220K	1/6W	CARBON		
	R118	QRD161J-331	330	1/6W	CARBON		
	R119	QRD161J-331	330	1/6W	CARBON		
	R131	QRD161J-332	3.3K	1/6W	CARBON		
	R132	QRD161J-221	220	1/6W	CARBON		
	R133	QRD161J-391	390	1/6W	CARBON		
	R134	QRD161J-272	2.7K	1/6W	CARBON		
	R135	QRD161J-681	680	1/6W	CARBON		
	R136	QRD161J-102	1K	1/6W	CARBON		
	R137	QRD161J-332	3.3K	1/6W	CARBON		
	R138	QRD161J-221	220	1/6W	CARBON		
	R139	QRD161J-333	33K	1/6W	CARBON		
	R140	QRD161J-561	560	1/6W	CARBON		
	R142	QRD161J-103	10K	1/6W	CARBON		
	R143	QRD161J-273	27K	1/6W	CARBON		E F C D G
	R143	QRD161J-273	27K	1/6W	CARBON		
	R143	QRD161J-682	6.8K	1/6W	CARBON		
	R143	QRD161J-682	6.8K	1/6W	CARBON		
	R143	QRD161J-682	6.8K	1/6W	CARBON		
	R144	QRD161J-103	10K	1/6W	CARBON		
	R145	QRD161J-103	10K	1/6W	CARBON		
	R147	QRD161J-391	390	1/6W	CARBON		
	R150	QRD161J-152	1.5K	1/6W	CARBON		
	R151	QRD161J-154	150K	1/6W	CARBON		
	R152	QRD161J-562	5.6K	1/6W	CARBON		
	R153	QRD161J-332	3.3K	1/6W	CARBON		
	R154	QRD161J-561	560	1/6W	CARBON		
	R155	QRD161J-221	220	1/6W	CARBON		
	R156	QRD161J-102	1K	1/6W	CARBON		
	R157	QRD161J-822	8.2K	1/6W	CARBON		C D E G
	R171	QRD161J-393	39K	1/6W	CARBON		
	R171	QRD161J-393	39K	1/6W	CARBON		
	R171	QRD161J-393	39K	1/6W	CARBON		
	R171	QRD161J-393	39K	1/6W	CARBON		
	R171	QRD161J-563	56K	1/6W	CARBON		F E F C D
	R172	QRD161J-154	150K	1/6W	CARBON		
	R172	QRD161J-154	150K	1/6W	CARBON		
	R172	QRD161J-753	75K	1/6W	CARBON		
	R172	QRD161J-753	75K	1/6W	CARBON		
	R172	QRD161J-753	75K	1/6W	CARBON		G E F C D
	R173	QRD161J-154	150K	1/6W	CARBON		
	R173	QRD161J-154	150K	1/6W	CARBON		
	R173	QRD161J-753	75K	1/6W	CARBON		
	R173	QRD161J-753	75K	1/6W	CARBON		
	R173	QRD161J-753	75K	1/6W	CARBON		G C D
	R174	QRD161J-332	3.3K	1/6W	CARBON		
	R175	QRD161J-332	3.3K	1/6W	CARBON		
	R176	QRD161J-124	120K	1/6W	CARBON		
	R176	QRD161J-124	120K	1/6W	CARBON		
	R176	QRD161J-124	120K	1/6W	CARBON		G E F C D
	R176	QRD161J-124	120K	1/6W	CARBON		
	R176	QRD161J-224	220K	1/6W	CARBON		
	R176	QRD161J-224	220K	1/6W	CARBON		
	R177	QRD161J-124	120K	1/6W	CARBON		
	R177	QRD161J-124	120K	1/6W	CARBON		G E F E F
	R177	QRD161J-124	120K	1/6W	CARBON		
	R177	QRD161J-224	220K	1/6W	CARBON		
	R177	QRD161J-224	220K	1/6W	CARBON		
	R178	QRD161J-472	4.7K	1/6W	CARBON		
	R178	QRD161J-472	4.7K	1/6W	CARBON		

# Resistors

△	ITEM	PART NUMBER	DESCRIPTION				AREA
	R178	QRD161J-682	6.8K	1/6W	CARBON		C D G E F
	R178	QRD161J-682	6.8K	1/6W	CARBON		
	R178	QRD161J-682	6.8K	1/6W	CARBON		
	R179	QRD161J-472	4.7K	1/6W	CARBON		
	R179	QRD161J-472	4.7K	1/6W	CARBON		
	R179	QRD161J-682	6.8K	1/6W	CARBON		C D G
	R179	QRD161J-682	6.8K	1/6W	CARBON		
	R179	QRD161J-682	6.8K	1/6W	CARBON		
	R180	QRD161J-472	4.7K	1/6W	CARBON		
	R181	QRD161J-472	4.7K	1/6W	CARBON		
	R182	QRD161J-103	10K	1/6W	CARBON		
	R183	QRD161J-473	47K	1/6W	CARBON		
	R184	QRD161J-473	47K	1/6W	CARBON		
	R185	QRD161J-562	5.6K	1/6W	CARBON		
	R186	QRD161J-103	10K	1/6W	CARBON		
	R187	QRD161J-562	5.6K	1/6W	CARBON		E
	R201	QRD161J-103	10K	1/6W	CARBON		
	R202	QRD161J-473	47K	1/6W	CARBON		
	R203	QRD161J-471	470	1/6W	CARBON		
	R205	QRD161J-103	10K	1/6W	CARBON		
	R205	QRD161J-103	10K	1/6W	CARBON		F G E F G
	R205	QRD161J-103	10K	1/6W	CARBON		
	R206	QRD161J-103	10K	1/6W	CARBON		
	R206	QRD161J-103	10K	1/6W	CARBON		
	R206	QRD161J-103	10K	1/6W	CARBON		
	R207	QRD161J-330	33	1/6W	CARBON		E F G E
	R221	QRD161J-103	10K	1/6W	CARBON		
	R221	QRD161J-103	10K	1/6W	CARBON		
	R221	QRD161J-103	10K	1/6W	CARBON		
	R222	QRD161J-473	47K	1/6W	CARBON		
	R222	QRD161J-473	47K	1/6W	CARBON		F G E F G
	R222	QRD161J-473	47K	1/6W	CARBON		
	R223	QRD161J-471	470	1/6W	CARBON		
	R223	QRD161J-471	470	1/6W	CARBON		
	R223	QRD161J-471	470	1/6W	CARBON		
	R225	QRD161J-103	10K	1/6W	CARBON		E F G E F
	R225	QRD161J-103	10K	1/6W	CARBON		
	R225	QRD161J-103	10K	1/6W	CARBON		
	R226	QRD161J-472	4.7K	1/6W	CARBON		
	R226	QRD161J-472	4.7K	1/6W	CARBON		
	R226	QRD161J-472	4.7K	1/6W	CARBON		G
	R241	QRD161J-473	47K	1/6W	CARBON		
	R242	QRD161J-103	10K	1/6W	CARBON		
	R243	QRD161J-103	10K	1/6W	CARBON		
	R244	QRD161J-103	10K	1/6W	CARBON		
	R244	QRD161J-103	10K	1/6W	CARBON		F G C D E
	R244	QRD161J-103	10K	1/6W	CARBON		
	R245	QRD161J-103	10K	1/6W	CARBON		
	R245	QRD161J-103	10K	1/6W	CARBON		
	R245	QRD161J-222	2.2K	1/6W	CARBON		
	R245	QRD161J-222	2.2K	1/6W	CARBON		F G
	R245	QRD161J-222	2.2K	1/6W	CARBON		
	R246	QRD161J-271	270	1/6W	CARBON		
	R247	QRD161J-332	3.3K	1/6W	CARBON		
	R247	QRD161J-332	3.3K	1/6W	CARBON		C D
	R247	QRD161J-332	3.3K	1/6W	CARBON		
	R247	QRD161J-332	3.3K	1/6W	CARBON		
	R247	QRD161J-332	3.3K	1/6W	CARBON		
	R247	QRD161J-332	3.3K	1/6W	CARBON		
	R247	QRD161J-822	8.2K	1/6W	CARBON		E F G
	R247	QRD161J-822	8.2K	1/6W	CARBON		
	R247	QRD161J-822	8.2K	1/6W	CARBON		
	R248	QRD161J-222	2.2K	1/6W	CARBON		
	R249	QRD161J-472	4.7K	1/6W	CARBON		



## Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R252	QRD161J-222	2.2K 1/6W CARBON	
R253	QRD161J-473	47K 1/6W CARBON	
R254	QRD161J-473	47K 1/6W CARBON	
R255	QRD161J-473	47K 1/6W CARBON	E
R255	QRD161J-473	47K 1/6W CARBON	F
R255	QRD161J-473	47K 1/6W CARBON	G

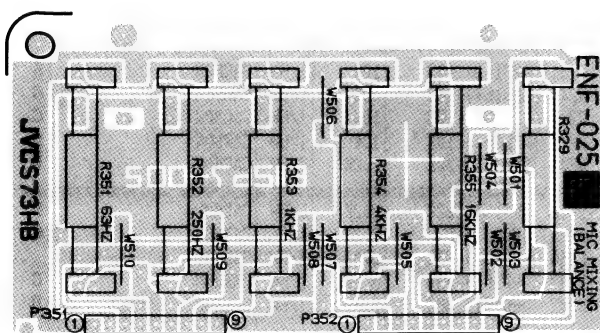
## Others

ITEM	PART NUMBER	DESCRIPTION	AREA
CF131	ECB2118-001R	CERAMIC FILTER	E
CF131	ECB2118-001R	CERAMIC FILTER	F
CF131	ECB2123-001R	CERAMIC FILTER	C
CF131	ECB2123-001R	CERAMIC FILTER	D
CF131	ECB2123-001R	CERAMIC FILTER	G
CF132	ECB2118-001R	CERAMIC FILTER	E
CF132	ECB2118-001R	CERAMIC FILTER	F
CF132	ECB2123-001R	CERAMIC FILTER	C
CF132	ECB2123-001R	CERAMIC FILTER	D
CF132	ECB2123-001R	CERAMIC FILTER	G
J101	EMV7112-003	SOCKET	D
J101	EMV7112-003	SOCKET	E
J101	EMV7112-003	SOCKET	F
J101	EMV7112-003	SOCKET	G
J101	EMV7112-005	SOCKET	C
J102	EMV7112-006	SOCKET	
J103	EMV7112-007	SOCKET	
L101	BQR2306-014	RF COIL	C
L101	BQR2306-014	RF COIL	D
L101	BQR2306-014	RF COIL	E
L101	BQR2306-014	RF COIL	G
L101	BQR2306-016	RF COIL	F
L102	BQR2106-014	RF COIL	
L103	BQR2406-004	RF COIL	
L104	BQL3001-1R5KY	INDUCTOR	

## Others

ITEM	PART NUMBER	DESCRIPTION	AREA
L201	BQR1111-006	RF COIL	
L202	BQR1207-009	RF COIL	
L221	BQR1111-005	RF COIL	E
L221	BQR1111-005	RF COIL	F
L221	BQR1111-005	RF COIL	G
L222	BQR1307-002	RF COIL	E
L222	BQR1307-002	RF COIL	F
L222	BQR1307-002	RF COIL	G
L241	BQL3001-471KYL	INDUCTOR	E
L241	BQL3001-471KYL	INDUCTOR	F
L241	BQL3001-471KYL	INDUCTOR	G
LP171	BQF0101-002	FILTER	
LP172	BQF0102-001	FILTER	F
S101	QSS6A12-E01	SLIDE SWITCH	C
SF101	BQF0201-006	FILTER	F
T131	BQT2140-012	I.F. TRANSFORMER	
T132	BQT2140-013	I.F. TRANSFORMER	
T133	ECB1560-003	CERAMIC FILTER	
TP101	B67764-002	TERMINAL ASSY	
TP102	B67764-002	TERMINAL ASSY	
XT171	ECX0000-456KR	RESONATOR	
XT241	ECX0007-200KC	X'TAL	
	E11227-202	CIRCUIT BOARD	
	E304180-001	SHIELD CASE	
	E70225-001	EARTH PLATE	
	E73297-001	SHIELD CASE	F
	EMB01YV-401K	ANT. TERMINAL	C
	EMB01YV-401K	ANT. TERMINAL	D
	EMB01YV-401K	ANT. TERMINAL	E
	EMB01YV-401K	ANT. TERMINAL	G
	EMB01YV-402K	ANT. TERMINAL	F

## ■ ENF-025 B SEA P.C. Board Ass'y





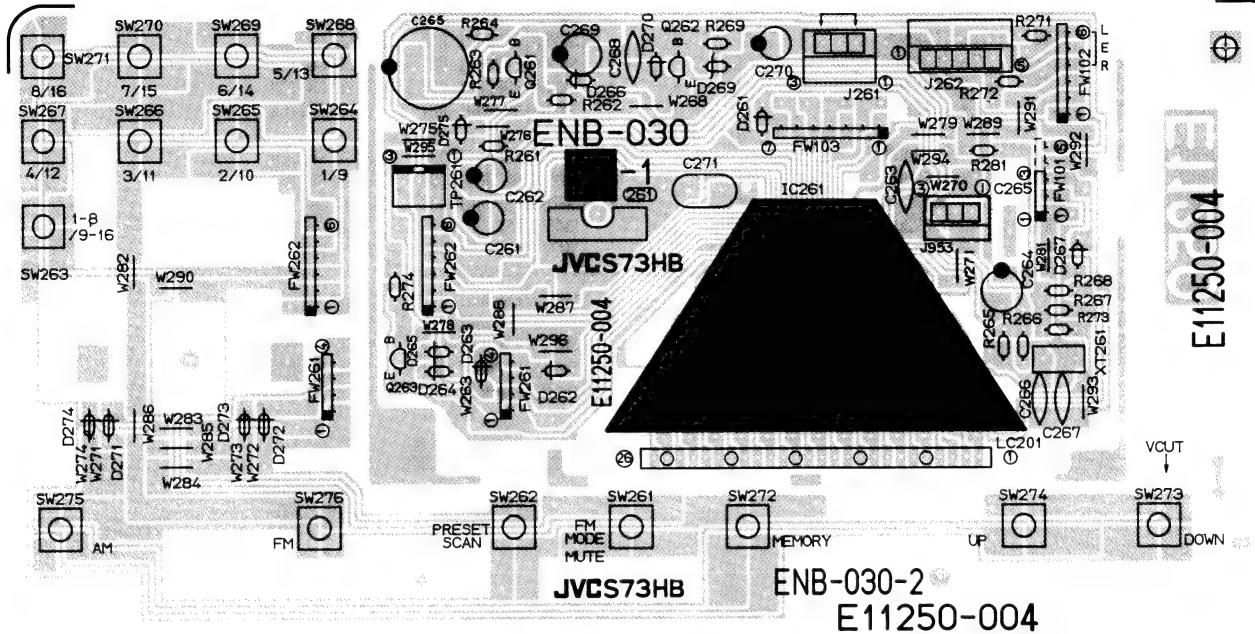
## ■ ENB-030 □ LCD Display and Operation Switch P.C. Board Ass'y

Note : ENB-030 □ Varies according to the areas employed. See Note (1) when placing an order.

Note (1)

P.C. Board Ass'y	Designated Areas
ENB-030 <input type="checkbox"/> N	U.S. Military Market & Other Countries

P.C. Board Ass'y	Designated Areas
ENB-030 <input type="checkbox"/> O	Australia
ENB-030 <input type="checkbox"/> P	Europe & U.K.
ENB-030 <input type="checkbox"/> Q	West Germany
ENB-030 <input type="checkbox"/> R	Italy



### Transistors

△	ITEM	PART NUMBER	DESCRIPTION	AREA
			MAKER	
	Q261	2SC1740 (R, S)	SILICON	ROHM
	Q262	2SC1741A (Q, R)	SILICON	ROHM
	Q263	2SC1685 (Q, R)	SILICON	MATSUSHITA

### Diodes

△	ITEM	PART NUMBER	DESCRIPTION	AREA
			MAKER	
	D267	1SS133	SILICON	ROHM
	D269	MTZ5.6C	ZENER	ROHM
	D270	1SS133	SILICON	ROHM
	D271	1SS133	SILICON	ROHM
	D272	1SS133	SILICON	ROHM
	D273	1SS133	SILICON	ROHM
	D274	1SS133	SILICON	ROHM
	D275	1SS133	SILICON	ROHM

### I.C.s

△	ITEM	PART NUMBER	DESCRIPTION	AREA
			MAKER	
	IC261	LC5813H-246	I.C.	N
	IC261	LC5813H-246	I.C.	O
	IC261	LC5813H-246	I.C.	P
	IC261	LC5813H-246	I.C.	Q
	IC261	LC5813H-396	I.C.	R

### Diodes

△	ITEM	PART NUMBER	DESCRIPTION	AREA
			MAKER	
	D261	1SS133	SILICON	P
	D262	1SS133	SILICON	Q
	D262	1SS133	SILICON	R
	D262	1SS133	SILICON	R
	D263	1SS133	SILICON	R
	D264	1SS133	SILICON	N
	D264	1SS133	SILICON	O
	D264	1SS133	SILICON	P
	D264	1SS133	SILICON	Q
	D266	1SS133	SILICON	Q

### Capacitors

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	C261	QETB1HM-105	1MF 50V ELECTRO	
	C262	QETB1HM-475	4.7MF 50V ELECTRO	
	C263	QCF21HP-103	0.01MF 50V CERAMIC	
	C264	QETB1AM-227	220MF 10V ELECTRO	
	C265	EEZ0501-229	0.22F 5.5V ELECTRO	
	C266	QCS21HJ-331	330PF 50V CERAMIC	
	C267	QCS21HJ-331	330PF 50V CERAMIC	
	C268	QCF21HP-103	0.01MF 50V CERAMIC	
	C269	QETB1CM-226	22MF 16V ELECTRO	
	C270	QETB1CM-476	47MF 16V ELECTRO	
	C271	QFN81HK-104	0.1MF 50V MYLAR	
	C272	QCF21HP-103A	0.01MF 50V CERAMIC	Q



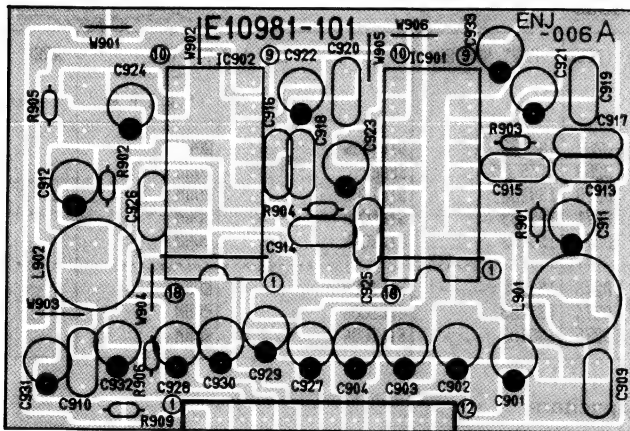
## Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R261	QRD161J-473	47K	1/6W	CARBON	
	R262	QRD161J-223	22K	1/6W	CARBON	
	R263	QRD161J-103	10K	1/6W	CARBON	
	R264	QRD161J-331	330	1/6W	CARBON	
	R265	QRD161J-105	1M	1/6W	CARBON	
	R266	QRD161J-222	2.2K	1/6W	CARBON	
	R267	QRD161J-472	4.7K	1/6W	CARBON	
	R268	QRD161J-472	4.7K	1/6W	CARBON	
	R269	QRD161J-472	4.7K	1/6W	CARBON	
	R271	QRD161J-153	15K	1/6W	CARBON	
	R272	QRD161J-153	15K	1/6W	CARBON	N O
	R273	QRD161J-472	4.7K	1/6W	CARBON	
	R274	QRD161J-105	1M	1/6W	CARBON	
	R281	QRD161J-103	10K	1/6W	CARBON	
	R281	QRD161J-103	10K	1/6W	CARBON	
	R281	QRD161J-103	10K	1/6W	CARBON	P Q R

## Others

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	J261	EMV7112-003	SOCKET	
	J262	EMV7112-005	SOCKET	
	J953	EMV7112-003	SOCKET	
	LC201	ELU0002-010	LCD PANEL	
	SW261	ESP0001-007	PUSH SWITCH	
.....				
	SW262	ESP0001-007	PUSH SWITCH	
	SW263	ESP0001-007	PUSH SWITCH	
	SW264	ESP0001-007	PUSH SWITCH	
	SW265	ESP0001-007	PUSH SWITCH	
	SW266	ESP0001-007	PUSH SWITCH	
.....				
	SW267	ESP0001-007	PUSH SWITCH	
	SW268	ESP0001-007	PUSH SWITCH	
	SW269	ESP0001-007	PUSH SWITCH	
	SW270	ESP0001-007	PUSH SWITCH	
	SW271	ESP0001-007	PUSH SWITCH	
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	SW272	ESP0001-007	PUSH SWITCH	
	SW273	ESP0001-007	PUSH SWITCH	
	SW274	ESP0001-007	PUSH SWITCH	
	SW275	ESP0001-007	PUSH SWITCH	
	SW276	ESP0001-007	PUSH SWITCH	
.....				
	TP261	QMV5005-003K	PLUG ASSY	
	XT261	ECX0000-400KS	CERA LOCK	
		E11250-004	CIRCUIT BOARD	
		E70859-001	EARTH PLATE	

## ■ ENJ-006 B Noise Reduction P.C. Board Ass'y



## I.C.s

▲	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	IC901	AN7363N	I.C.	MATSUSHITA	
	IC902	AN7363N	I.C.	MATSUSHITA	

## Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C901	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C902	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C903	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C904	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C909	QCF21HP-103	0.01MF	50V	CERAMIC	

## Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C910	QCF21HP-103	0.01MF	50V	CERAMIC	
	C911	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C912	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C913	QCY21HK-122	1200PF	50V	CERAMIC	
	C914	QCY21HK-122	1200PF	50V	CERAMIC	
	C915	QFN81HJ-272	2700PF	50V	MYLAR	
	C916	QFN81HJ-272	2700PF	50V	MYLAR	
	C917	QFV81HJ-683	0.068MF	50V	T.FILM	
	C918	QFV81HJ-683	0.068MF	50V	T.FILM	
	C919	QFV81HJ-104	0.1MF	50V	T.FILM	
	C920	QFV81HJ-104	0.1MF	50V	T.FILM	
	C921	QEK61EM-475G	4.7MF	25V	ELECTRO	
	C922	QEK61EM-475G	4.7MF	25V	ELECTRO	
	C923	QETB1CM-107	100MF	16V	ELECTRO	
	C924	QETB1CM-107	100MF	16V	ELECTRO	
	C925	QFN81HJ-182	1800PF	50V	MYLAR	
	C926	QFN81HJ-182	1800PF	50V	MYLAR	
	C927	QEK61HM-105G	1MF	50V	ELECTRO	
	C928	QEK61HM-105G	1MF	50V	ELECTRO	
	C929	QEK61HM-225G	2.2MF	50V	ELECTRO	
	C930	QEK61HM-225G	2.2MF	50V	ELECTRO	
	C931	QETB1CM-476	47MF	16V	ELECTRO	
	C932	QEK61HM-225G	2.2MF	50V	ELECTRO	
	C933	QEK61CM-107	100MF	16V	ELECTRO	



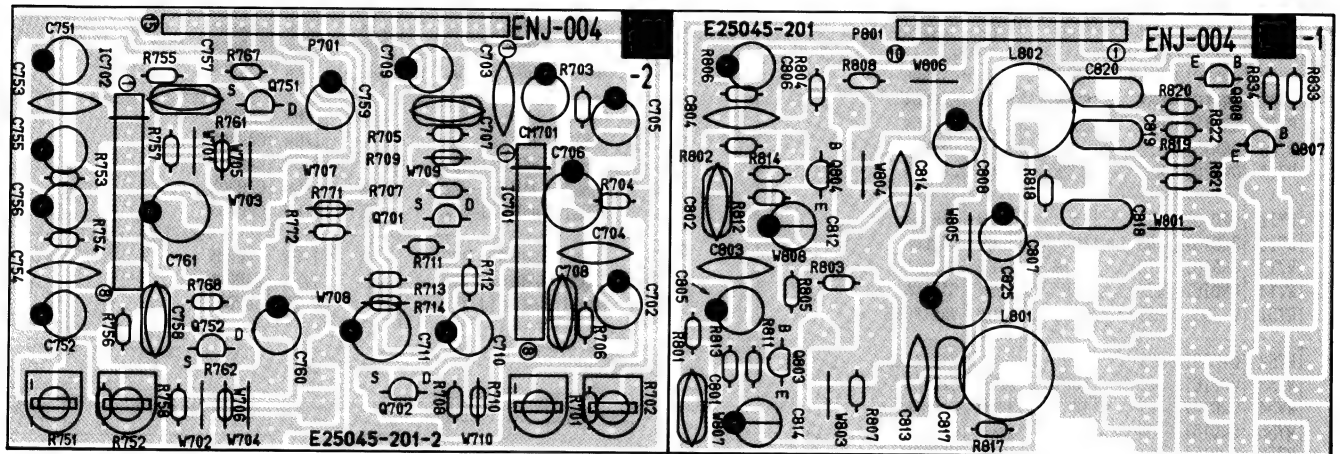
## Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R901	QRD161J-432	4.3K	1/6W	CARBON	
	R903	QRD161J-680	68	1/6W	CARBON	
	R904	QRD161J-680	68	1/6W	CARBON	
	R905	QRD161J-103	10K	1/6W	CARBON	
	R906	QRD161J-152	1.5K	1/6W	CARBON	
.....						
	R909	QRD161J-472	4.7K	1/6W	CARBON	

## Others

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	L901	EQF0401-005	FILTER	
	L902	EQF0401-005	FILTER	
	P901	EMV5101-012B	PLUG ASSY	
		E10981-101	CIRCUIT BOARD	

## ■ ENJ-004D Record Amplifier and Playback Amplifier P.C. Board Ass'y



## Transistor

△	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	Q701	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q702	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q751	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q752	2SK301 (P, Q)	F.E.T	MATSUSHITA	
	Q803	2SC1740LN (R, S)	SILICON	ROHM	
.....					
	Q804	2SC1740LN (R, S)	SILICON	ROHM	
	Q807	2SC1740 (R, S)	SILICON	ROHM	
	Q808	2SC1740 (R, S)	SILICON	ROHM	

## Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C706	QETB1AM-107	100MF	10V	ELECTRO	
	C707	QFN81HJ-822	8200PF	50V	MYLAR	
	C708	QFN81HJ-822	8200PF	50V	MYLAR	
	C709	QETB1HM-225	2.2MF	50V	ELECTRO	
	C710	QETB1HM-225	2.2MF	50V	ELECTRO	
.....						
	C711	QETB1CM-107	100MF	16V	ELECTRO	
	C751	QETB1HM-475	4.7MF	50V	ELECTRO	
	C752	QETB1HM-475	4.7MF	50V	ELECTRO	
	C753	QCS21HJ-101	100PF	50V	CERAMIC	
	C754	QCS21HJ-101	100PF	50V	CERAMIC	
.....						
	C755	QETB1AM-107	100MF	10V	ELECTRO	
	C756	QETB1AM-107	100MF	10V	ELECTRO	
	C757	QFN81HJ-822	8200PF	50V	MYLAR	
	C758	QFN81HJ-822	8200PF	50V	MYLAR	
	C759	QETB1HM-225	2.2MF	50V	ELECTRO	
.....						
	C760	QETB1HM-225	2.2MF	50V	ELECTRO	
	C761	QEK61CM-107	100MF	16V	ELECTRO	
	C801	QCF21HP-473	0.047MF	50V	CERAMIC	
	C802	QCF21HP-473	0.047MF	50V	CERAMIC	
	C803	QCS21HJ-151	150PF	50V	CERAMIC	
.....						
	C804	QCS21HJ-151	150PF	50V	CERAMIC	
	C805	QETB1HM-225	2.2MF	50V	ELECTRO	
	C806	QETB1HM-225	2.2MF	50V	ELECTRO	
	C807	QETB1HM-475	4.7MF	50V	ELECTRO	
	C808	QETB1HM-475	4.7MF	50V	ELECTRO	
.....						
	C811	QEK61CM-106G	10MF	16V	ELECTRO	
	C812	QEK61CM-106G	10MF	16V	ELECTRO	
	C813	QCS21HJ-271	270PF	50V	CERAMIC	
	C814	QCS21HJ-271	270PF	50V	CERAMIC	
	C817	QFN81HJ-123	0.012MF	50V	MYLAR	

## I.C.s

△	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	IC701	M51522L	I.C.	mitsubishi	
	IC702	M51522L	I.C.	mitsubishi	

## Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C701	QETB1HM-475	4.7MF	50V	ELECTRO	
	C702	QETB1HM-475	4.7MF	50V	ELECTRO	
	C703	QCS21HJ-101	100PF	50V	CERAMIC	
	C704	QCS21HJ-101	100PF	50V	CERAMIC	
	C705	QETB1AM-107	100MF	10V	ELECTRO	



Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C818	QFN81HJ-123	0.012MF	50V	MYLAR	
	C819	QFN81HJ-822	8200PF	50V	MYLAR	
	C820	QFN81HJ-822	8200PF	50V	MYLAR	
	C825	QEK61CM-107	100MF	16V	ELECTRO	

Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R701	QVZ3518-221	220	0.1W	VARIABLE	
	R702	QVZ3518-221	220	0.1W	VARIABLE	
	R703	QRD161J-101	100	1/6W	CARBON	
	R704	QRD161J-101	100	1/6W	CARBON	
	R705	QRD161J-334	330K	1/6W	CARBON	
	R706	QRD161J-334	330K	1/6W	CARBON	
	R707	QRD161J-682	6.8K	1/6W	CARBON	
	R708	QRD161J-682	6.8K	1/6W	CARBON	
	R709	QRD161J-822	8.2K	1/6W	CARBON	
	R710	QRD161J-822	8.2K	1/6W	CARBON	
	R711	QRD161J-105	1M	1/6W	CARBON	
	R712	QRD161J-105	1M	1/6W	CARBON	
	R713	QRD161J-472	4.7K	1/6W	CARBON	
	R714	QRD161J-471	470	1/6W	CARBON	
	R751	QVZ3518-221	220	0.1W	VARIABLE	
	R752	QVZ3518-221	220	0.1W	VARIABLE	
	R753	QRD161J-101	100	1/6W	CARBON	
	R754	QRD161J-101	100	1/6W	CARBON	
	R755	QRD161J-334	330K	1/6W	CARBON	
	R756	QRD161J-334	330K	1/6W	CARBON	
	R757	QRD161J-682	6.8K	1/6W	CARBON	
	R758	QRD161J-682	6.8K	1/6W	CARBON	
	R761	QRD161J-822	8.2K	1/6W	CARBON	
	R762	QRD161J-822	8.2K	1/6W	CARBON	
	R767	QRD161J-105	1M	1/6W	CARBON	

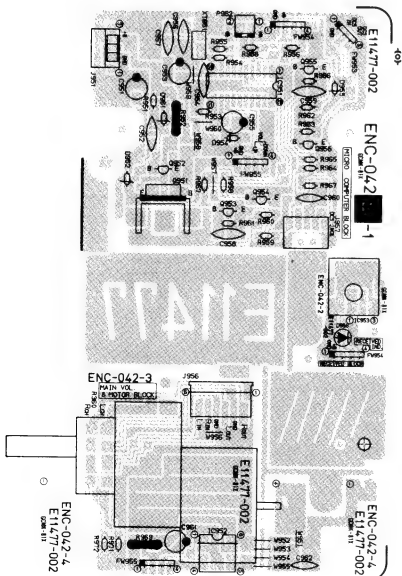
Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R768	QRD161J-105	1M	1/6W	CARBON	
	R771	QRD161J-471	470	1/6W	CARBON	
	R772	QRD161J-222	2.2K	1/6W	CARBON	
	R801	QRD161J-333	33K	1/6W	CARBON	
	R802	QRD161J-333	33K	1/6W	CARBON	
	R803	QRD161J-474	470K	1/6W	CARBON	
	R804	QRD161J-474	470K	1/6W	CARBON	
	R805	QRD161J-823	82K	1/6W	CARBON	
	R806	QRD161J-823	82K	1/6W	CARBON	
	R807	QRD161J-153	15K	1/6W	CARBON	
	R808	QRD161J-153	15K	1/6W	CARBON	
	R811	QRD161J-272	2.7K	1/6W	CARBON	
	R812	QRD161J-272	2.7K	1/6W	CARBON	
	R813	QRD161J-104	100K	1/6W	CARBON	
	R814	QRD161J-104	100K	1/6W	CARBON	
	R817	QRD161J-101	100	1/6W	CARBON	
	R818	QRD161J-101	100	1/6W	CARBON	
	R819	QRD161J-822	8.2K	1/6W	CARBON	
	R820	QRD161J-822	8.2K	1/6W	CARBON	
	R821	QRD161J-472	4.7K	1/6W	CARBON	
	R822	QRD161J-472	4.7K	1/6W	CARBON	
	R833	QRD161J-473	47K	1/6W	CARBON	
	R834	QRD161J-473	47K	1/6W	CARBON	D

Others

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	L801	EQL2106-562	INDUCTOR	
	L802	EQL2106-562	INDUCTOR	
	P701	EMV5101-015B	PLUG ASSY	
	P801	EMV5101-010B	PLUG ASSY	
		E25045-201	CIRCUIT BOARD	

■ ENC-042 A Remote Control P.C. Board Ass'y



Transistor

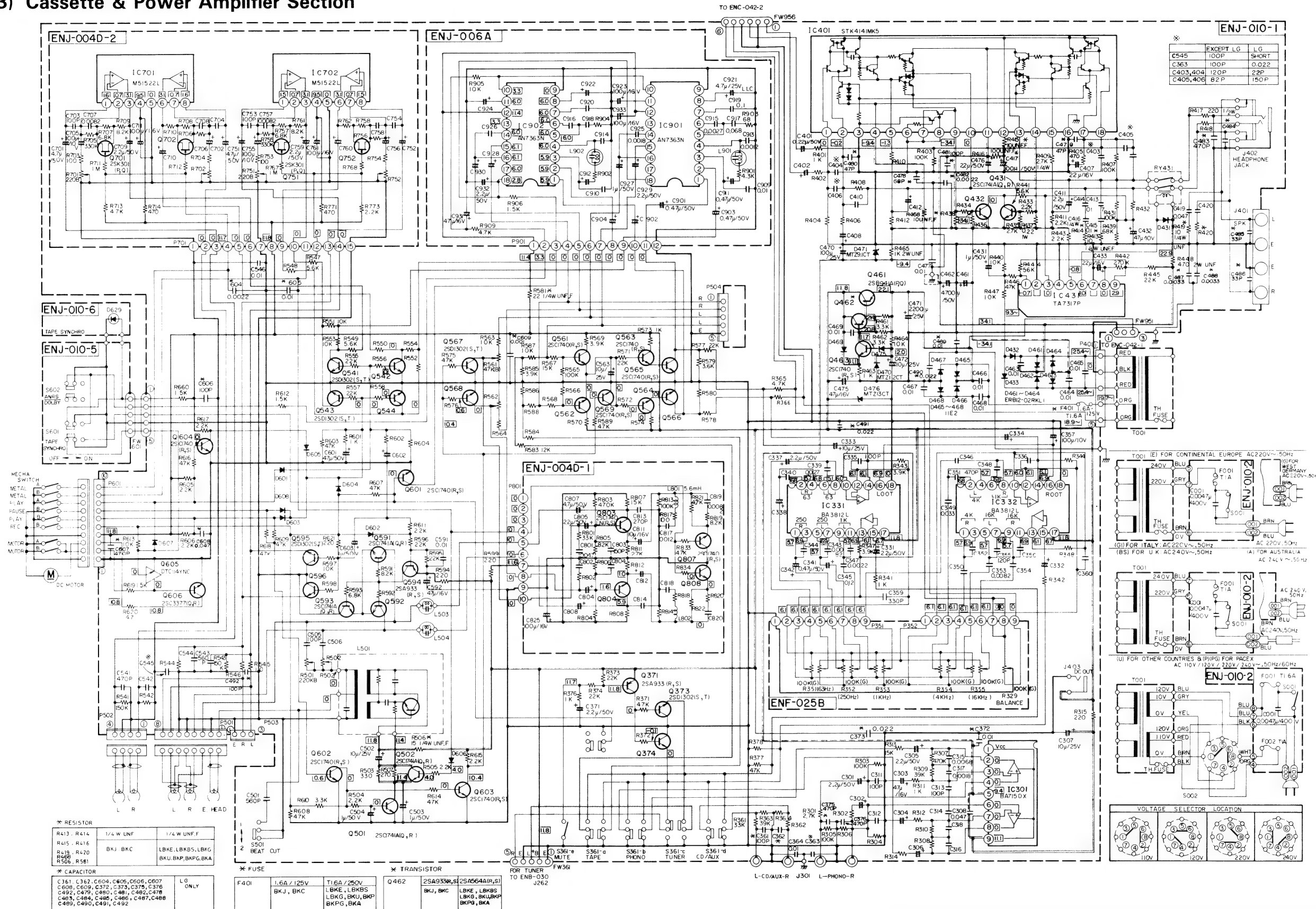
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				MAKER	
	Q951	2SD1913(R,S)	SILICON	SANYO	
	Q952	2SC1685(R,S)	SILICON	MATSUSHITA	
	Q953	2SC1685(R,S)	SILICON	MATSUSHITA	
	Q954	2SA564A(R,S)	SILICON	MATSUSHITA	
	Q955	2SC1685(R,S)	SILICON	MATSUSHITA	
	Q956	2SC1685(R,S)	SILICON	MATSUSHITA	

I.C.s

△	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	IC951	UPD7564CS-071	I.C.	NEC	
	IC952	LB1639	I.C.	SANYO	
	IC953	GP1U501	I.C.	SHARP	

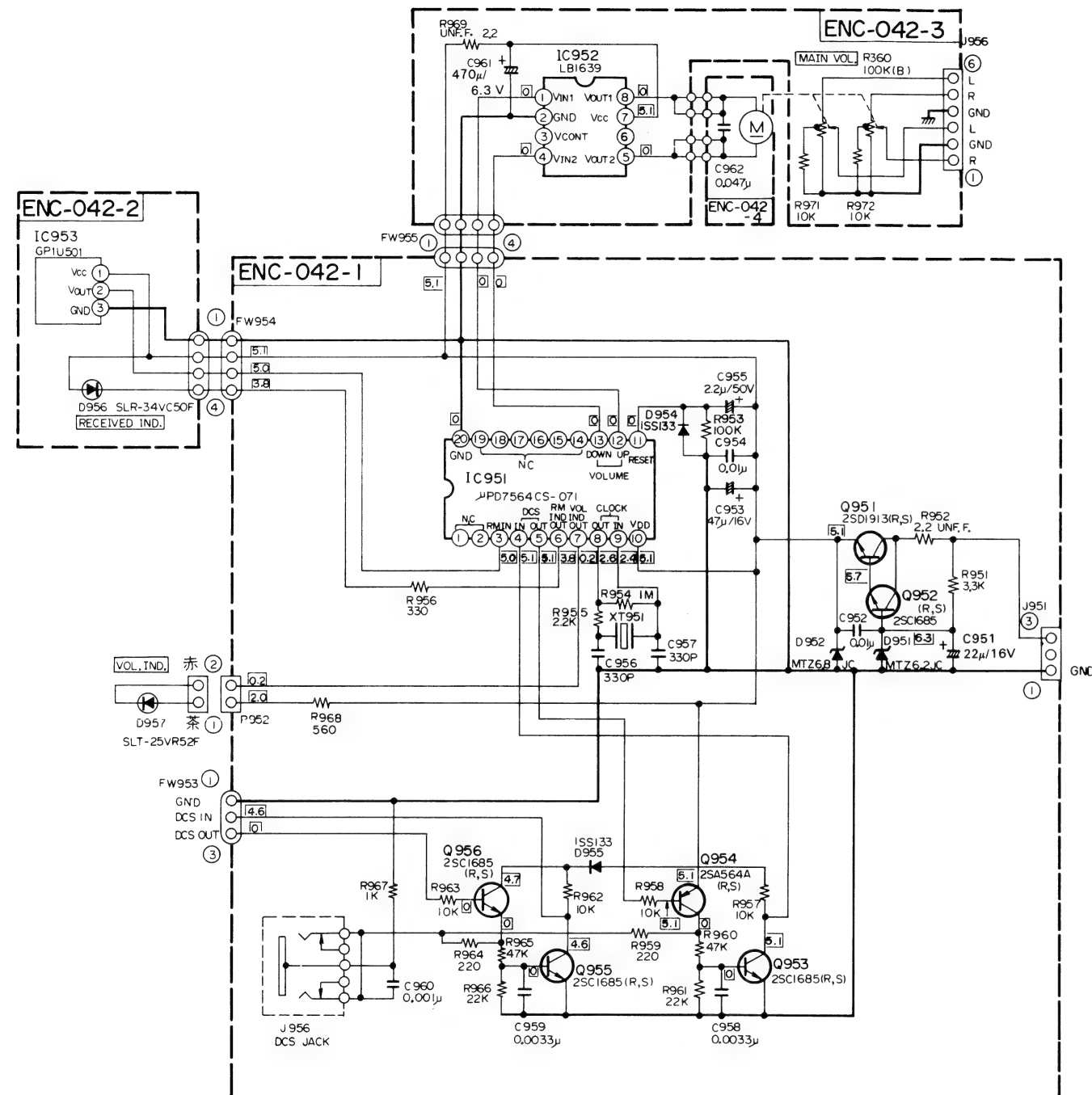


### (3) Cassette & Power Amplifier Section



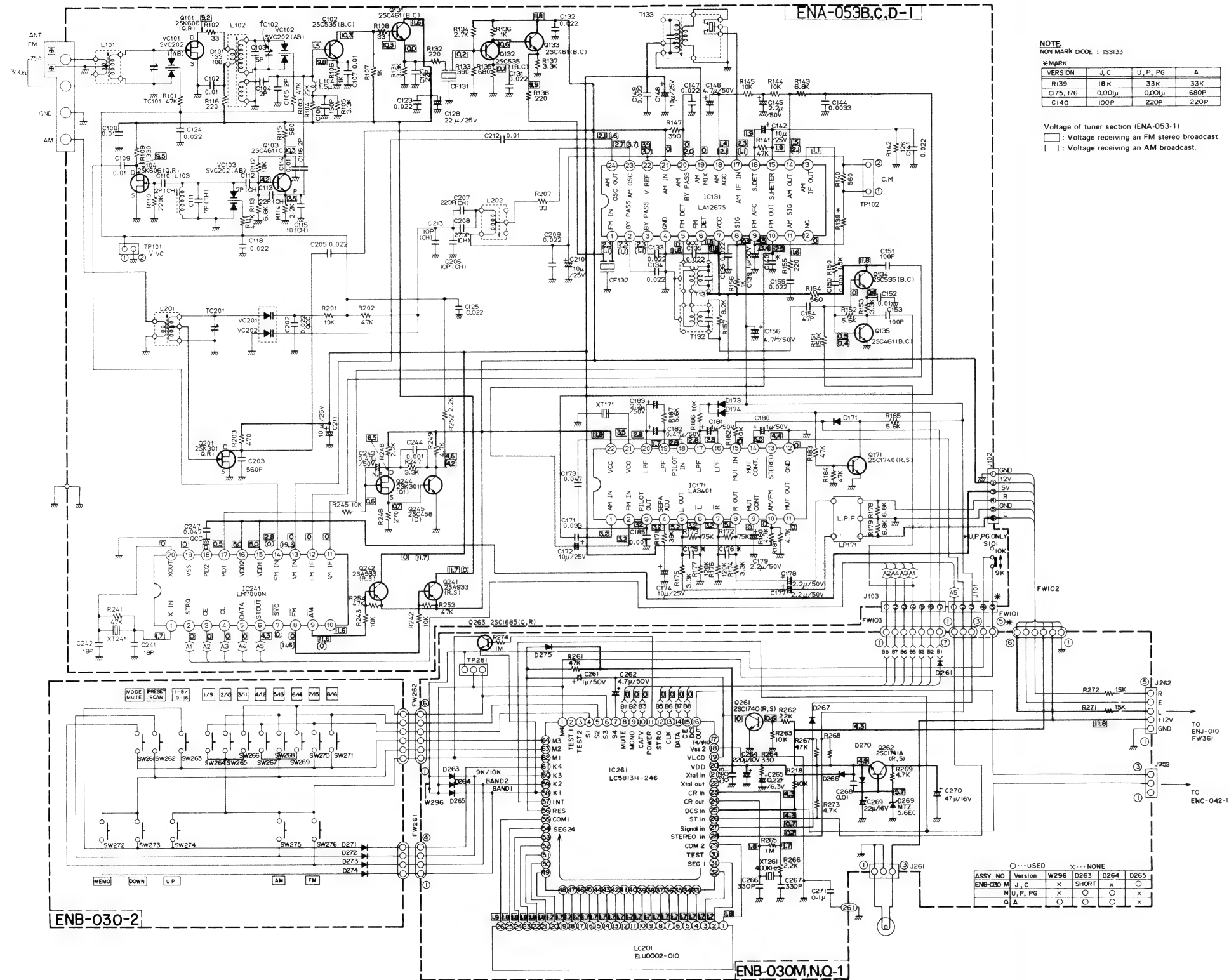


#### (4) Remote-control Section





# Schematic Diagrams (1) FM/AM Tuner Section



## Notes:

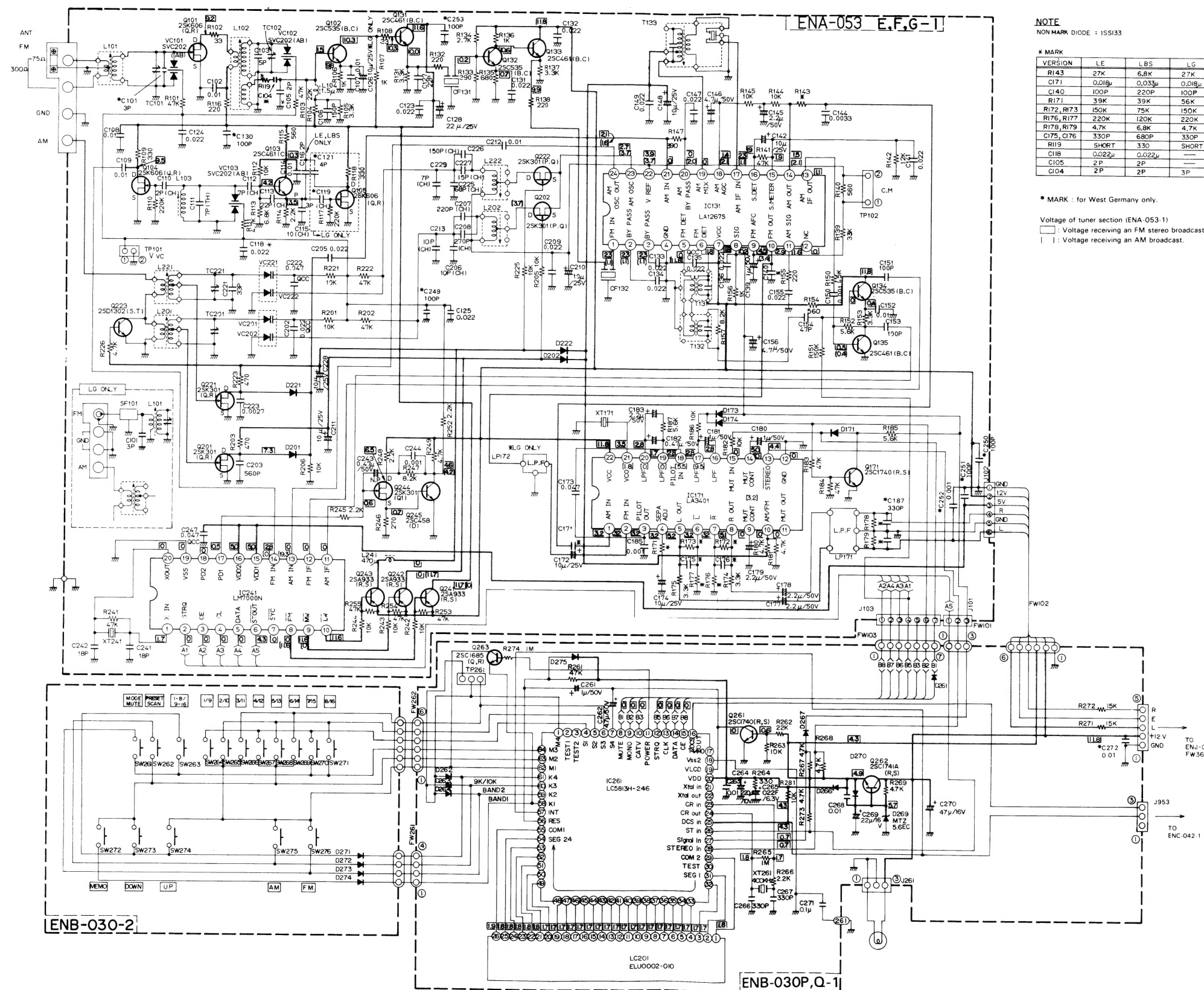
1. shows DC voltage to the chassis with no signal input.
2. indicates ±B power supply.
3. indicates signal path.
4. When replacing the parts in the darkened are ( ) and those marked with Δ, be sure to use the designated parts to ensure safety.
5. This is the standard circuit diagram.  
The design and contents are subject to change without notice.



DR-E2BK  
DR-E2LBK

DR-E2BK  
DR-E2LBK

## (2) FM/MW/LW Tuner Section



### Notes:

1. □ shows DC voltage to the chassis with no signal input.
2. — indicates ±B power supply.
3. | indicates signal path.

4. When replacing the parts in the darkned are ( ) and those marked with Δ, be sure to use the designated parts to ensure safety.
5. This is the standard circuit diagram.  
The design and contents are subject to change without notice.



## Diodes

△	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	D951	MTZ6.2JC	ZENER	ROHM	
	D952	MTZ6.8JC	ZENER	ROHM	
	D954	1SS133	SILICON	ROHM	
	D955	1SS133	SILICON	ROHM	
	D956	SLR-34VC50F	L.E.D.	ROHM	

## Capacitors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	C951	QETB1EM-226	22MF	25V	ELECTRO	
	C952	QCF21HP-103	0.01MF	50V	CERAMIC	
	C953	QETB1CM-476	47MF	16V	ELECTRO	
	C954	QCF21HP-103	0.01MF	50V	CERAMIC	
	C955	QETB1HM-225	2.2MF	50V	ELECTRO	
	C956	QCS21HJ-221	220PF	50V	CERAMIC	
	C957	QCS21HJ-221	220PF	50V	CERAMIC	
	C958	QCY21HK-332	3300PF	50V	CERAMIC	
	C959	QCY21HK-332	3300PF	50V	CERAMIC	
	C960	QCY21HK-102	1000PF	50V	CERAMIC	
	C961	QETB0JM-477	470MF	6.3V	ELECTRO	
	C962	QCF21HP-473	0.047MF	50V	CERAMIC	

## Resistors

△	ITEM	PART NUMBER	DESCRIPTION			AREA
	R360	QVDB91B-E15B	100K	0.2W	VARIABLE	
	R951	QRD161J-332	3.3K	1/6W	CARBON	
△	R952	QRZ0076-2R2	2.2	1/4W	FUSIBLE	
	R953	QRD161J-104	100K	1/6W	CARBON	
	R954	QRD161J-105	1M	1/6W	CARBON	
	R955	QRD161J-682	6.8K	1/6W	CARBON	
	R956	QRD161J-331	330	1/6W	CARBON	
	R957	QRD161J-103	10K	1/6W	CARBON	
	R958	QRD161J-103	10K	1/6W	CARBON	
	R959	QRD161J-221	220	1/6W	CARBON	
	R960	QRD161J-473	47K	1/6W	CARBON	
	R961	QRD161J-223	22K	1/6W	CARBON	
	R962	QRD161J-103	10K	1/6W	CARBON	
	R963	QRD161J-103	10K	1/6W	CARBON	
	R964	QRD161J-221	220	1/6W	CARBON	
	R965	QRD161J-473	47K	1/6W	CARBON	
	R966	QRD161J-223	22K	1/6W	CARBON	
	R967	QRD161J-102	1K	1/6W	CARBON	
	R968	QRD161J-561	560	1/6W	CARBON	
△	R969	QRZ0076-2R2	2.2	1/4W	FUSIBLE	
	R971	QRD161J-103	10K	1/6W	CARBON	
	R972	QRD161J-103	10K	1/6W	CARBON	

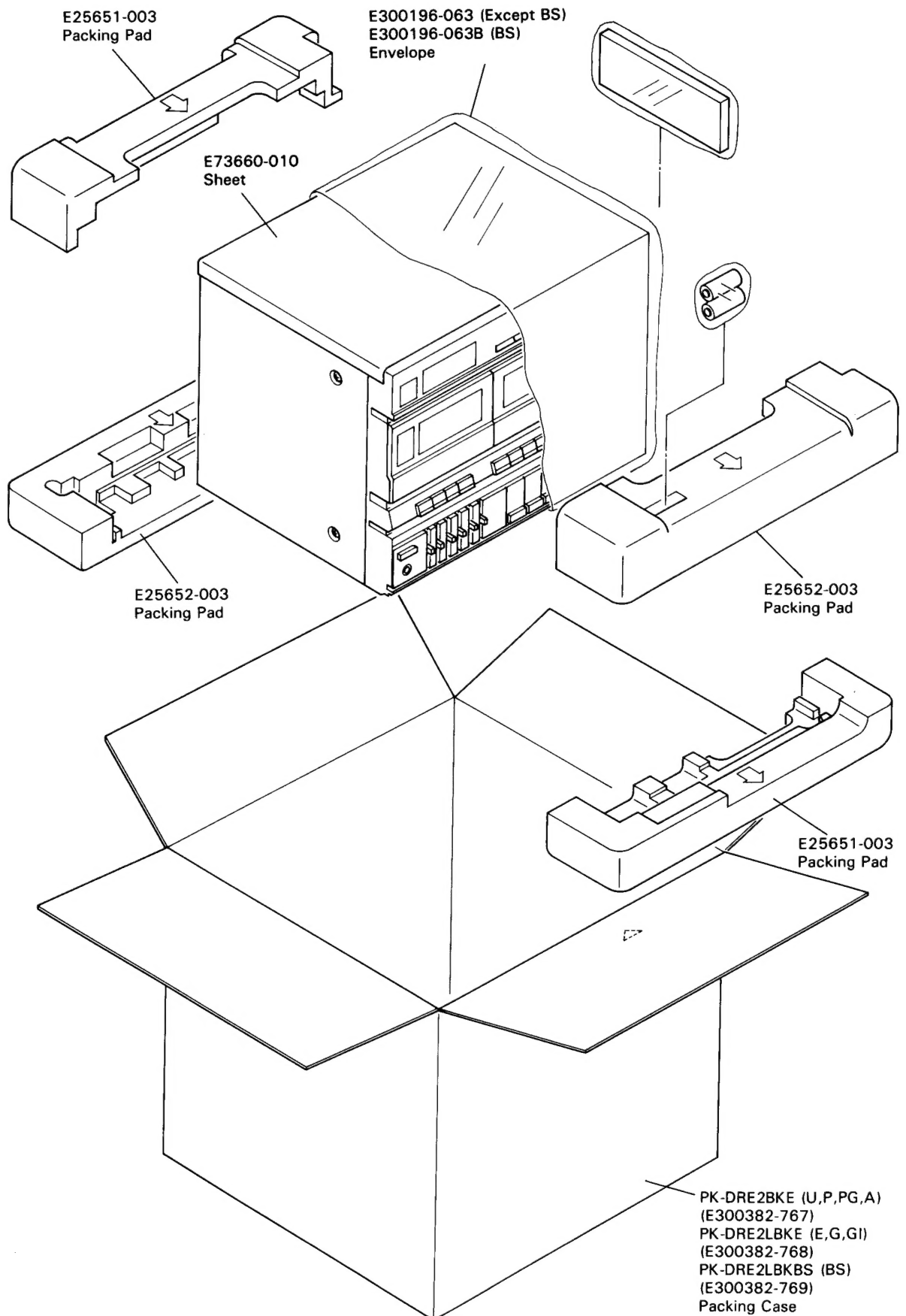
△ Safety Parts

## Others

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	J951	EMV7112-003	SOCKET	
	J956	EMV7112-006R	SOCKET	
	J957	QMS3533-001	JACK ASSY	
	P952	EMV5103-002A	PLUG ASSY	
	XT951	BCX0000-400KS	CERA LOCK	
	E11477-002		CIRCUIT BOARD	
	E70306-001		HEAT SINK	
	E74026-001		C.B. BRACKET	
	FE-ZMS409		SHIELD RING	
	SBSB3008Z		SCREW	
	SBST3006Z		SCREW	



# Packing Materials and Part Numbers





# Accessories List

△	Part Number	Part Name	Q'ty	Description	Area
	E30580-1400A E30580-1400ABS BT20048B BT20029C BT20064	Instruction Book Instruction Book Warranty Card Warranty Card Warranty Card	1 1 1 1 1		Except BS BS P, PG A G
	BT20060 BT20046C BT20066 QZL1008-001 BT20095	Warranty Card Service Information EEC Agency FTZ Information Sheet Audio Warranty Card	1 1 1 1 1		BS P, PG G, BS G A
	BT20098 EQB4001-012 E304084-001 TCP-3304 EWP502-001	Audio Warranty Card AM Loop Antenna Loop Stand Audio Tape Built-in Antenna	1 1 1 1 1		A    Except G
	E67007-001 E35497-017 E35497-019 E303919-003 E303919-004	Wire Antenna Ass'y Caution Sheet Caution Sheet Stand Stand	1 1 1 1 1	110V 220V L R	G P U, PG
	QPGA008-01905 SBSE3008N QPGA003-00503 E73539-002 RM-SE3	Poly Cover Screw Envelope Caution Sheet Remote Control	1 2 1 1 1	Stand Screw	
△	UM-3(DJ)-2P E04056 E300196-033 E300196-033B	Battery Siemens Plug Envelope Envelope	2 1 1 1		U, PG Except BS BS

△ Safety Parts

## The Marks for Designated Areas

A	.....	Australia
E	.....	Europe
G	.....	West Germany
GI	.....	Italy
BS	.....	U.K.
P,PG	....	U.S. Military Market
U	.....	Other Countries

No mark indicates all areas.